TETRA TECH

July 12, 2021

Mr. Andrew Gieseke
EPA On-Scene Coordinator
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Subject: **Removal Assessment Report**
Tanglefoot Lane Site, Bettendorf, Iowa
EPA SEMS Identification No. IAN000703123
U.S. EPA Region 7, START 5, (b) (4) [redacted]
Task Monitor: Andrew Gieseke, EPA On-Scene Coordinator

Dear Mr. Gieseke:

Tetra Tech, Inc. submits the enclosed Removal Assessment report regarding the above-referenced site. If you have any questions or comments regarding this submittal, please contact the Project Manager at (816) 412-1744.

Sincerely,

(b) (4)

START Project Manager

(b) (4)

START Program Manager

Enclosures

[redacted]

X903021F0035.000

415 Oak Street, Kansas City, MO 64106
Tel 816.412.1741 Fax 816.410.1748 www.tetratech.com

30496573

REMOVAL ASSESSMENT REPORT
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA SEMS ID – IAN000703123

Superfund Technical Assessment and Response Team (START) 5 Contract
(b) (4)

Prepared For:

U.S. Environmental Protection Agency
Region 7
Superfund Division
11201 Renner Boulevard
Lenexa, Kansas 66219

July 12, 2021

Prepared By:

Tetra Tech, Inc.
415 Oak Street
Kansas City, Missouri 64106
(816) 412-1741

CONTENTS

APPENDICES

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region 7 Superfund Division tasked Tetra Tech, Inc., (Tetra Tech) Superfund Technical Assessment and Response Team (START) to conduct removal assessment activities at the Tanglefoot Lane site (the site) in Bettendorf, Iowa, under START 5 (b) (4) [redacted]

Purposes of the removal assessment were to determine the location and extent of subsurface contamination, and to use that information to assess need for a removal action. Work proceeded under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The EPA On-Scene Coordinator (OSC) for the project was Andrew Gieseke, and the START Project Manager was Thomas Kaley.

START's removal assessment task was to collect soil samples at the site using direct-push technology (DPT) equipment.

2.0 SITE DESCRIPTION AND BACKGROUND

Section 2.0 specifies the site location, describes the site and its operational history, conveys site geology and hydrogeology, and recounts previous investigations of the site.

2.1 SITE LOCATION AND DESCRIPTION

The site is within the City of Bettendorf in Scott County, Iowa (see Appendix A, Figure 1). It consists of two contiguous parcels, 841523010 and 841433011, totaling approximately 18 acres, south of Tanglefoot Lane between Devils Glen Road and Middle Road. All activities of this removal assessment occurred on parcel 841433011, where an unpermitted landfill was identified as a potential source of soil and groundwater contamination.

Most acreage at the site is covered by timber and grassland, with steep topographical slopes to the south toward an unnamed tributary of Crow creek that discharges to a neighboring residential pond. Adjacent property north of Tanglefoot Lane is developed for residential use; adjacent properties to the east and west are residential/commercial; adjacent properties across the creek to the south are improved with a church, parking lots, and residences. According to the Scott County assessor web site, the current owners of the site are sisters (b) (6) (Scott County Assessor 2021). During the 1960s through the 1970s, the property was used as a waste collection and disposal site (Tetra Tech 2016).

2.2 GEOLOGY AND HYDROGEOLOGY

The site is in the Mississippi River Valley of the Great Plains Region of the Central Interior of the United States. The region is covered with glacial sediments that have eroded to form a landscape consisting of uplands bisected by rivers, creeks, and streams that discharge into the Mississippi River. Site-specific soil information provided in the United States Department of Agriculture Soil Survey for Scott County, Iowa, indicates that the site is mostly characterized by Downs Silt Loam, Lindley Loam, and Nodaway Silt Loam. The Lindley Loam and Downs Silt Loam range from 5-25% slopes (moderately sloping to steep), and from moderately eroded to severely eroded. These are well-drained soils with permeabilities ranging from moderately slow (Lindley Loam) to moderate (Downs Silt Loam). Runoff from these soils ranges from medium to very rapid. The Nodaway Silt Loam has 0-2% slopes, and is a moderately well-drained soil found in areas of recent deposition. Permeability of the Nodaway soil is moderate, it has a slow runoff rate, and its seasonal high water table is at depths of 3-5 feet below ground surface (bgs).

Observed geology in the vicinity of the former landfill during prior investigations included surface fill materials, silty clay loam and sandy silt in thin seams, dense dry stiff to plastic clays of glacial origin (various thicknesses), sand lenses, and sandy saturated substrate at depths of 12 to 15 feet bgs. The fill area included degraded materials mixed with sand and clay, with glass, plastic, and debris mixed in at various intervals. Depth to groundwater varies from approximately 35 feet bgs near the roadway to approximately 1 foot bgs near the southern site boundary.

Observed geology in the vicinity of the former oil pit (see Appendix A, Figure 2) included surface debris in a limited area, silty clay loam and loess, and well-rounded oxidized sand. Thin, dry, discontinuous sand lenses were observed above 20 feet bgs.

Direction of groundwater flow is to the south. Groundwater flows toward the unnamed intermittent creek near the southern boundary of the site. Depth of groundwater at the southern end of the site is consistent with creek levels. The creek is an unnamed tributary of Crow Creek, which flows southeast toward the Mississippi River (Tetra Tech 2015).

2.3 PREVIOUS INVESTIGATIONS

The following are descriptions of previous investigations at the site:

EnviroNET, Inc. – Phase I Environmental Site Assessment

EnviroNET, Inc. (EnviroNet) conducted a Phase I Environmental Site Assessment (ESA) of the site in 2012. The ESA revealed that the site had previously served as a landfill for municipal waste, and possibly industrial waste. In addition, it was learned that Mr. Harry Meinert was in the "oil and chip" business, which included storage of waste oil for application to country roads for dust control. During the site inspection, EnviroNET observed presence of waste on the ground surface among weeds and trees. The type of waste observed consisted of glass, plastic, and metal containers—including 55-gallon drums, scrap metal, and limited construction debris (EnviroNET 2012). Recognized environmental conditions (REC) identified during the Phase I ESA included:

- Unpermitted storage of municipal waste on the site
- Possible presence of hazardous/contaminated waste in containers, in soil, in leachate, and/or in groundwater
- Former storage of waste oil on the site in clay pits
- Presence of leachate drainage pipe extending from the fill area and draining downhill.

EnviroNET – Phase II Environmental Investigation

EnviroNET performed a Phase II ESA in 2012/2013, part of which involved efforts to confirm or eliminate RECs identified during the Phase I ESA. During the Phase II ESA, contamination detected in soil and groundwater indicated significant breakdown of solvents. However, analytical results from soil and groundwater samples indicated that most of the contamination—including tetrachloroethene (PCE), polychlorinated biphenyls (PCB), and trichloroethene (TCE)—had remained with the waste or in leachate within the waste. EnviroNET concluded that these contaminants would remain there, leaching slowly over time until removal of the waste. The Phase II ESA did not include an assessment of the unnamed creek inside the southern property line.

Tetra Tech – Preliminary Assessment

Tetra Tech performed a preliminary assessment (PA) of the site in 2015 that revealed numerous detections of contaminants in soil, groundwater, surface water, sediment, and soil-gas samples, including PCE/TCE and their breakdown products. The PA found that the main sources of contamination were likely near the landfill and oil pit areas of the site where disposal of various substances is known to have occurred. During the PA, discussion of the following Hazardous Ranking System (HRS) factors associated with the site occurred:

- Contaminants were detected in all media sampled during the PA.
- The extent of contamination associated with the site is unknown.
- The air pathway addressed by HRS is the ambient (outdoor air) only.
- Releases of contaminants to groundwater and surface water migration pathways have been documented, although no targets have been sampled.

The PA report concluded that because the extent of contamination at the site remains unknown, the impact of that contamination on human health or the environment is also unknown.

Tetra Tech – Site Inspection

Tetra Tech conducted a site inspection (SI) of the Tanglefoot Lane site in 2016 and 2018. The SI report concluded that the main sources of contamination were at or near the landfill and oil pit areas of the site where disposal of various substances was known to have occurred. The primary contaminants were metals and volatile organic compounds (VOCs) (including PCE and its degradation products) detected in soil and groundwater. VOCs have also been detected in samples of soil gas, sub-slab vapor, indoor air, and ambient air collected at or near the site. During the SI, PCE and TCE were not detected in groundwater

samples collected upgradient or downgradient of the site, leading to a conclusion that PCE and TCE contamination in groundwater remained on site concentrated at the oil pit and estimated landfill area. The SI ultimately revealed that the soil and sediment pathways pose a potential threat to the public health of those who reside or work on or near the site.

2.4 WASTE CHARACTERISTICS

This section discusses waste characteristics of known contaminants at the site.

2.4.1 Tetrachloroethene

PCE is a chlorinated solvent with an ether-like odor that has been typically used in dry cleaning operations and as a degreaser for metal parts (Agency for Toxic Substances and Disease Registry [ATSDR] 2019). PCE is denser than water and tends to be found at greater depths with increasing distance from a source area if released to the environment. Prolonged exposure to PCE may cause vision changes and neurobehavioral effects.

PCE was introduced as a dry cleaning solvent in 1934, and by 1948 had replaced carbon tetrachloride (CCl_4) as the major chlorinated dry cleaning solvent used in the United States (petroleum solvents still dominated overall). By 1962, dry cleaning operations accounted for 90 percent of PCE used in the United States (State Coalition for Remediation of Drycleaners 2007). At one time, PCE had been mixed with grain protectants and certain liquid grain fumigants, but this was no longer approved by 1980 (Meister Publishing Company 1980). In the environment, PCE degrades to TCE via dechlorination.

2.4.2 Trichloroethene

TCE is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE is not thought to occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of manufacture, use, and disposal of the chemical (ATSDR 2018). The *cis* and *trans* isomers of 1,2-dichloroethene (DCE) and 1,1-DCE are common degradation products from TCE. These daughter products eventually degrade to vinyl chloride.

2.4.3 1,2-Dichloroethene

1,2-DCE is a highly flammable, colorless liquid with a sharp, harsh odor. It is used to produce solvents and in chemical mixtures. Very small amounts of 1,2-DCE in air (about 17 parts per million [ppm]) are detectable by odor; either or both the *cis* and *trans* isomers can be present (ATSDR 2018).

2.4.4 1,1- Dichloroethene

1,1-DCE is an industrial chemical not found naturally in the environment. It is a colorless liquid with a mild, sweet smell. It is also called vinylidene chloride. 1,1-DCE is used to make certain plastics, such as flexible films like food wrap, and in packaging materials. It is also used to make flame retardant coatings for fiber and carpet backings, and in piping, coating for steel pipes, and in adhesive applications (ATSDR 2018). Anaerobic bacteria break down 1,1-DCE to vinyl chloride in the environment via reductive dechlorination.

2.4.5 Polychlorinated Biphenyls

PCBs belong to a broad family of man-made organic chemicals known as chlorinated hydrocarbons. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979. They have a range of toxicity and vary in consistency from thin, light-colored liquids to yellow or black waxy solids. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and in many other industrial applications. PCBs have been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system (EPA 2021).

3.0 REMOVAL ASSESSMENT ACTIVITIES

Sampling activities during this removal assessment occurred during May 3-4, 2021. Site activities were documented in a field logbook (see Appendix B). Boring logs are in Appendix C, and photographic documentation is in Appendix D. START members (b) (4) performed sampling activities under Analytical Services Request (ASR) 8811, alongside DPT contractor Below Ground Surface (BGS). Unless otherwise noted in this report, sampling and analytical procedures followed standard operating procedures (SOP) specified in the approved, site-specific, Quality Assurance Project Plan (QAPP) (Tetra Tech 2021) or QAPP Addendum Number 1(Tetra Tech 2021). Sample locations were selected around the oil pit area of the site, spaced approximately 40 feet apart in a grid structure. START completed a boring log for each DPT sample collected during the removal assessment that included the following information: sample location (latitude/longitude), depth, collection date and time, and detailed description of the boring.

START labeled and packaged soil and water samples appropriately, and placed them in a cooler maintained at temperature at or below 4 degrees Celsius (°C). All samples were hand-delivered on May 5, 2021 to the EPA Region 7 laboratory in Kansas City, Kansas, for analysis under ASR 8811.

3.1 DIRECT-PUSH TECHNOLOGY SOIL SAMPLING

Using a track mounted DPT rig, START advanced borings at 20 locations around the "oil pit" area of the site (see Figure 3 in Appendix A). At each DPT soil sampling location, a soil sampler containing a disposable polyvinyl chloride (PVC) liner was advanced via the DPT rig to 10 feet bgs. START field-screened soil cores for VOCs using a handheld photoionization detector (PID). START noted no elevated VOC readings or other evidence (visible or olfactory) of contamination. Two soil samples were collected at each soil boring—one within approximately 4 to 5 feet bgs and a second within 9 to 10 feet bgs.

Table 1 in Appendix F summarizes soil samples collected.

Within each sampled interval, START collected a grab sample for VOCs analysis in accordance with EPA SW-846 Method 5035, and collected a separate grab sample for PCBs analysis. Each grab sample for VOCs analysis consisted of: (1) two 40-milliliter (mL) vials, both preserved with sodium bisulfate and containing approximately 5 grams of soil; (2) one 40 mL vial preserved with methanol and containing approximately 5 grams of soil; and (3) one unpreserved container packed with soil (used for determination of moisture content). The sample for PCBs analysis was placed into one unpreserved 8-ounce amber jar.

After completion of sampling activities, all DPT boreholes were plugged with bentonite from bottom of hole to ground surface.

3.2 QUALITY CONTROL SAMPLES

Quality assurance (QA)/quality control (QC) sampling of soil during the removal assessment involved collection of one equipment rinsate blank and one trip blank. Samples were submitted to EPA Region 7 laboratory for VOCs and PCBs analyses under ASR 8811.

3.3 DEVIATIONS FROM QAPP

START originally intended sample locations to be approximately 30 feet apart; however, to help ensure delineation of the extent of contamination, START extended sampling locations to 40 feet apart. Due to dense vegetation in the area around the "oil pit" and increasing gradient to the south, distances between samples varied, with the greatest distance of approximately 75 feet between sample locations DPT-18 and DPT-19. The majority of sample locations were approximately 40 feet apart (see Figure 3 in Appendix A). No other significant deviation from the QAPP occurred. Minor deviations did not adversely affect results of the removal assessment.

4.0 ANALYTICAL DATA SUMMARY

Soil and water samples were submitted to the EPA Region 7 laboratory for analyses for VOCs and PCBs. The analytical data package for ASR 8811 is in Appendix E. Data tables are in Appendix F.

4.1 SOIL SAMPLE RESULTS

Analytical results indicated presence of TCE in 37 of 40 samples at concentrations ranging from 11 to 5,000 micrograms per kilogram (µg/kg). Several other volatiles detected included 1,1-DCE, *cis*-1,2-DCE, 1,1,1-trichloroethane (TCA), 1,1,2-TCA, 1,1,2-trichlorotrifluoroethane, PCE, methyl acetate, and methylcyclohexane. The PCB Aroclor 1260 was detected in DPT-11 at concentration of 120 µg/kg. No other PCBs were detected in any other sample. Highest concentrations of volatiles were detected within the interior borings of the sample grid, nearest to the former oil pit location, with lower concentrations detected at the outer borings. The only analytes detected at concentrations exceeding EPA Removal Management Levels (RMLs) were 1,1,2-TCA and TCE (at 1,700 and 5,000 µg/kg, respectively) at DPT-10 within 9-10 feet bgs. These detections exceeded EPA RMLs for residential, noncarcinogenic, child screening levels (hazard quotient 1).

Several other contaminants detected included acetone, toluene, and 2-butanone, all of which are common laboratory contaminants; however; whether these detections are related to laboratory activities or to the site itself is unclear because the chemicals disposed of at the site are unknown. Analytical results from soil samples are summarized in Tables 2 and 3 in Appendix F, and on Figures 4 and 5 in Appendix A.

4.2 QA/QC SAMPLE RESULTS

No contaminants were detected in either the rinsate blank or trip blank.

5.0 SUMMARY

Tetra Tech START conducted removal assessment activities to determine the location and extent of subsurface contamination, and to assess need for a removal action at the site. START collected 40 subsurface soil samples from 20 soil borings advanced to 10 feet bgs. All samples, including QA/QC samples, were submitted to the EPA Region 7 laboratory for VOCs and PCBs analyses.

Laboratory analytical results indicated detections of TCE in 37 of 40 soil samples at concentrations ranging from 11 to 5,000 µg/kg, and of 1,1,1-TCA in soil at levels ranging from 7 to 950 µg/kg. Several other contaminants detected in soil samples included PCE; 1,1,2-TCA; 1,1-DCE; *cis*-1,2-DCE; and 1,1,2-trichlorotrifluoroethane (among these, 1,1,2-TCA was found at the highest concentration of 1,700 µg/kg at DPT-10). The PCB Aroclor 1260 was detected at DPT-11 at 120 µg/kg, well below the EPA RML. No PCB was detected in any other soil sample collected at the site.

The only VOCs detected at concentrations exceeding EPA RMLs were 1,1,2-TCA at 1,700 µg/kg and TCE at 5,000 µg/kg—both at DPT-10 within 9-10 feet bgs. The area of the site surrounding the former oil pit had the highest concentrations of VOCs, with concentrations of TCE decreasing south of the oil pit area.

Based on analytical results, the extent of contamination is greater than originally anticipated; however, the only RML exceedances were at the center of the sampling grid. TCE was found at the deepest interval in all borings except one, suggesting that contamination could also extend deeper than originally thought. Further assessment may be warranted to delineate the full extent of contamination and to determine whether contamination extends to greater depths around the former oil pit.

6.0 REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR). 2018. Toxic Substances Portal, ToxFAQs™ for Trichloroethylene. Accessed on August 8, 2018. https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=172&tid=30

ATSDR. 2019. Toxicological Profile for Tetrachloroethylene. Last updated on April 8, 2019. http://www.atsdr.cdc.goc/toxprofiles/tp.asp?id=265&tid=48

EnviroNET, Inc. (EnviroNET). 2012. Phase I Environmental Site Assessment – Former Meinert Farm. July.

Environmental Protection Agency, U.S. (EPA). 2021. Learn about Polychlorinated Biphenyls (PCBs). Last updated on May 13, 2021. Accessed on July 12, 2021. Learn about Polychlorinated Biphenyls (PCBs) | Polychlorinated Biphenyls (PCBs) | US EPA

EPA. 2016. *Pre-CERCLA Screening Guidance*. Office of Land and Emergency Management (OLEM) Directive 9200.3-107. December.

Meister Publishing Company. 1980. *Farm Chemicals Handbook.* Willoughby, Ohio.

Scott County Assessor. 2021. Map. Last updated on July 7, 2021. Beacon - Scott County / City of Davenport, Iowa - Map (schneidercorp.com)

State Coalition for Remediation of Drycleaners. 2007. *A Chronology of Historical Developments in Drycleaning.* November. http://www.drycleancoalition.org/download/drycleaning-historical_developments.pdf

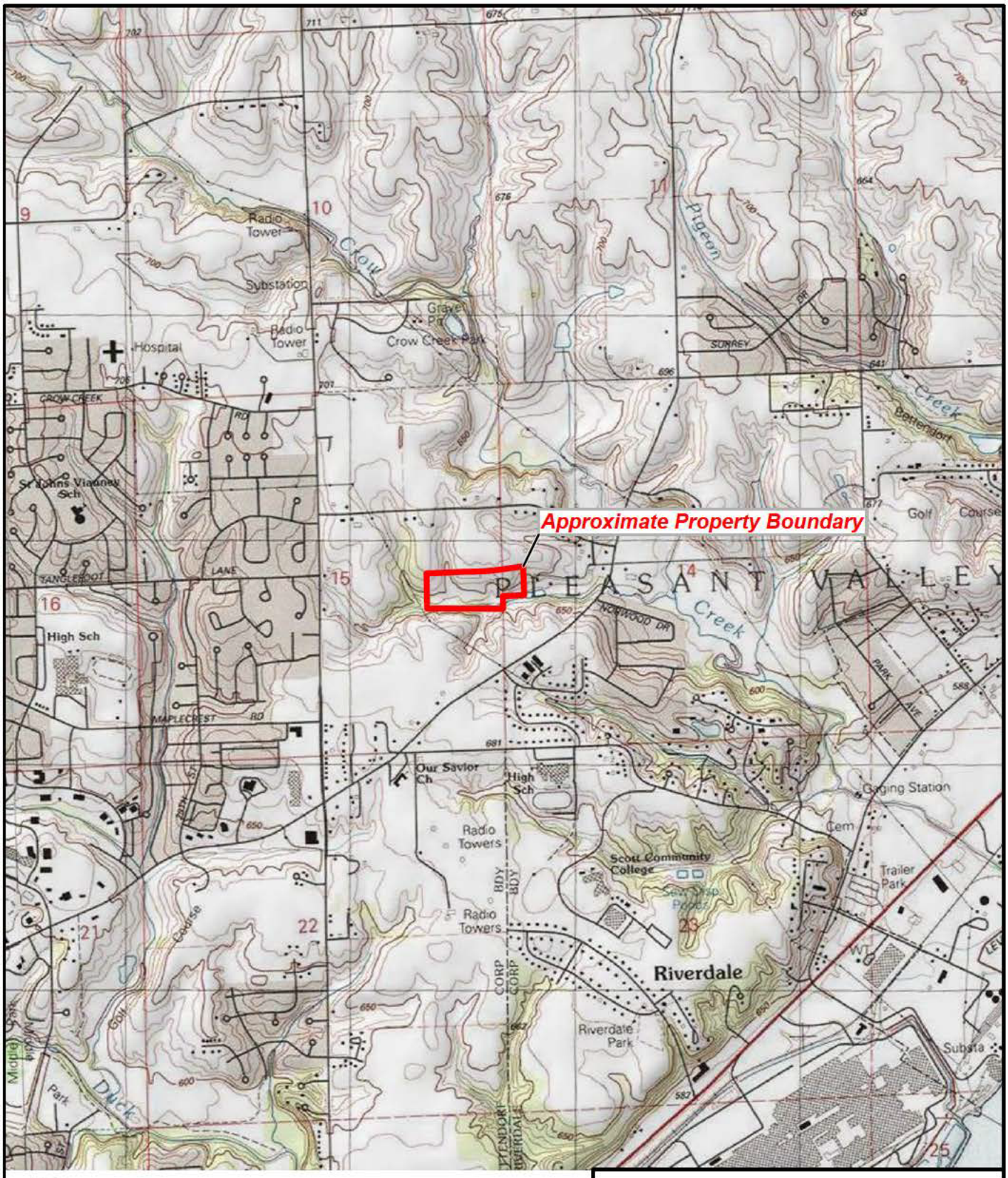
Tetra Tech, Inc. (Tetra Tech). 2015. Quality Assurance Project Plan (QAPP) for Tanglefoot Lane Site. July 13.

Tetra Tech. 2016. Preliminary Assessment Report. Tanglefoot Lane Site, Bettendorf, Iowa. February.

Tetra Tech. 2021. QAPP Addendum No. 1. Direct-Push Technology Soil Sampling at the Tanglefoot Lane Site. March 3.

APPENDIX A

FIGURES



N

0 1,000 2,000

Feet

Source: USGS Silvis, IA 7 5 Minute Topo Quad, 1991
Scott County Iowa, GIS Map Service, 2015

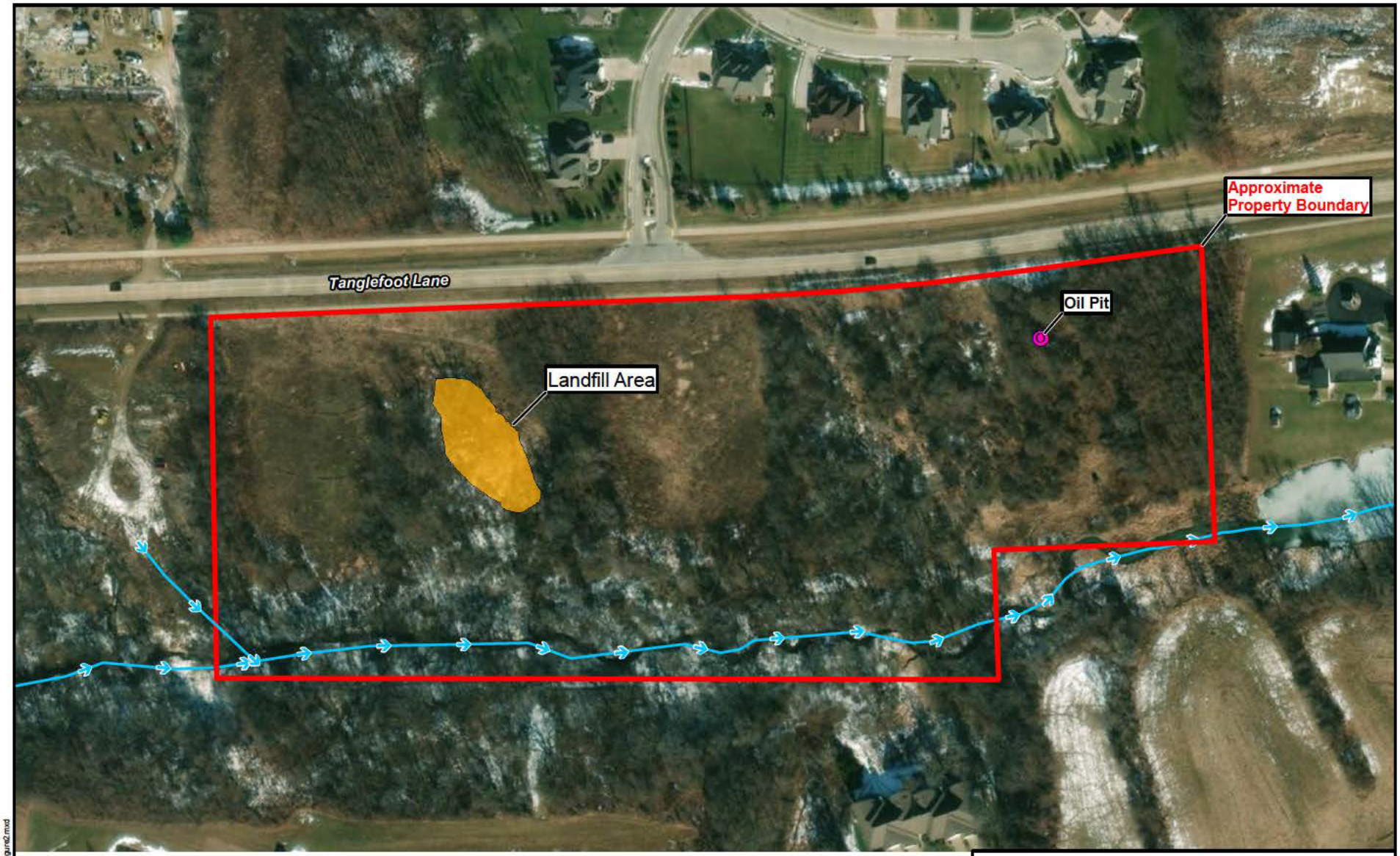
Tanglefoot Lane Site
Bettendorf, Iowa

Figure 1
Site Location Map

TETRA TECH

Date 12/6/2019 Drawn By Nick Wiederholt Project No X903019F0086.001

X:\G\903\0086.001\Projects\mxd\Figure1.mxd



Legend

- Oil pit location
- Creek
- Approximate property boundary
- Estimated landfill area

Source: Esri, ArcGIS Online, World Imagery, 2020

N

0 100 200

Feet

Tanglefoot Lane Site
Bettendorf, Iowa

Figure 2
Site Layout Map

TETRA TECH

Date 2/19/2021 Drawn By Nick Wiederholt Project No X9G3021F0035.000

C:\GIS_Workspace\X9G3021F0035\000\Projects\mxd\Figure2.mxd

Legend

- Oil pit location
- DPT soil sample location
- Approximate property boundary
- DPT Direct push technology

Source: Esri, ArcGIS Online, World Imagery, 2020

N

0 25 50

Feet

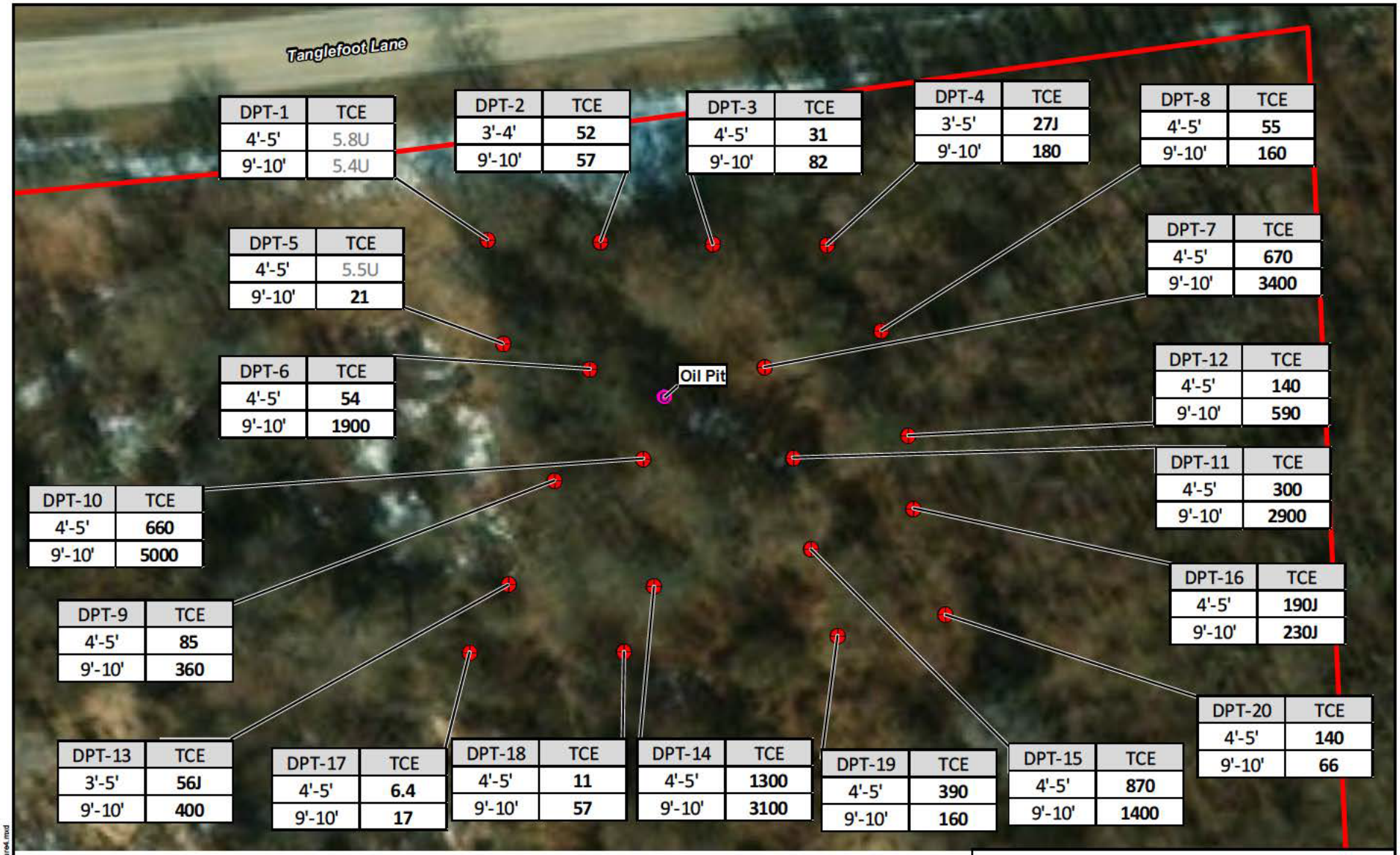
Tanglefoot Lane Site
Bettendorf, Iowa

Figure 3
Sample Location Map

TETRA TECH

Date 2/19/2021 Drawn By Nick Wiederholt Project No X903021F0035.000

C:\GIS_Workspace\X903\021F0035\000\Projects\mxd\Figure3.mxd



Legend

- Oil pit location
- DPT soil sample location
- Approximate property boundary
- DPT Direct push technology

Note:
All values in µg/kg

- TCE Trichloroethene
- J Estimated result
- U Not detected
- µg/kg Microgram per kilogram

N

0 25 50

Feet

Source: Esri, ArcGIS Online, World Imagery, 2020

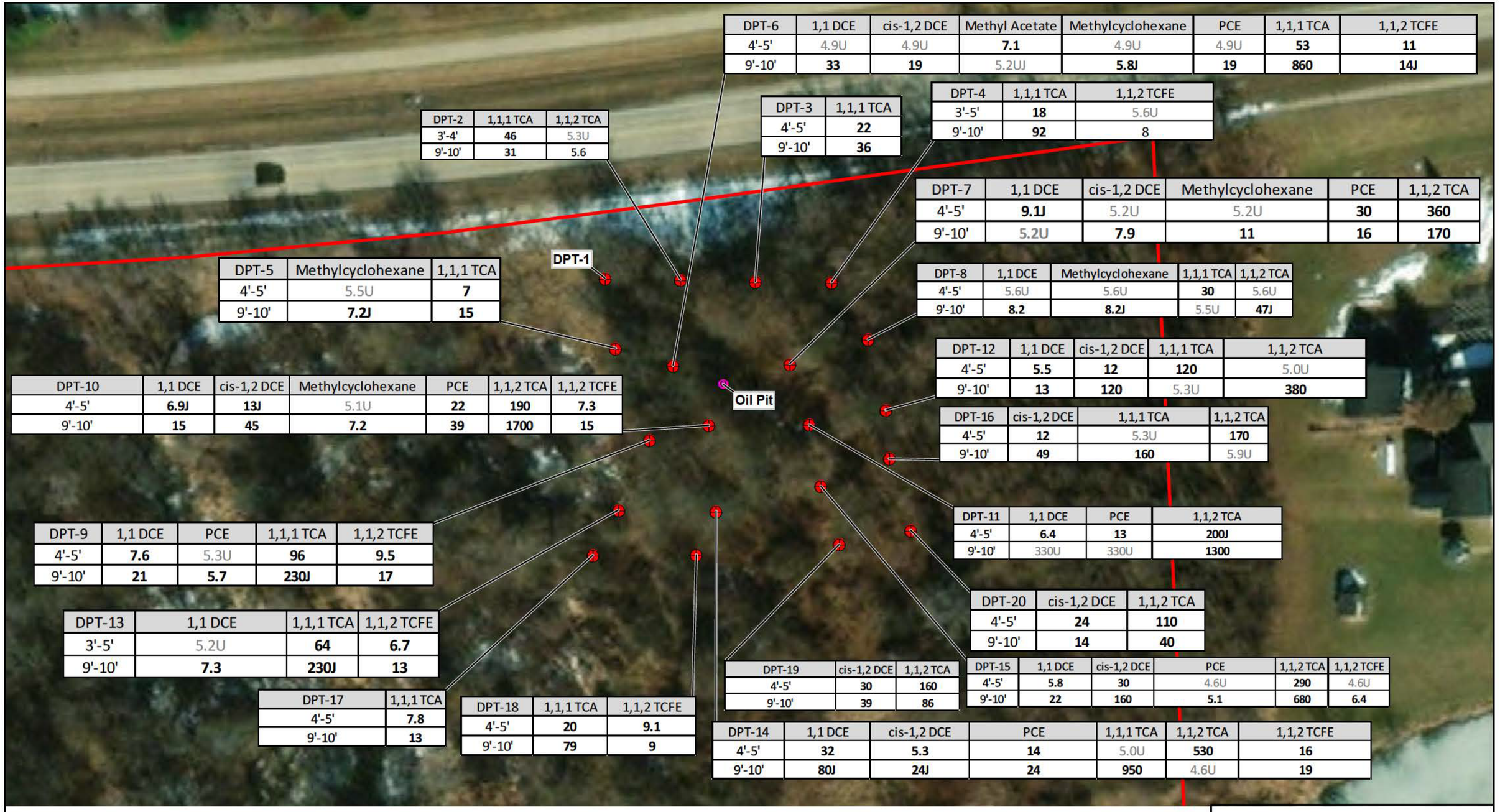
Tanglefoot Lane Site
Bettendorf, Iowa

Figure 4
TCE Results in Soil Samples Map

TETRA TECH

Date 7/8/2021 Drawn By Rose Mickle Project No X903021F0035.000

C:\GIS Workspace\G\903\0\21F0035\000\Projects\mxd\Figure4.mxd



DPT-6	1,1 DCE	cis-1,2 DCE	Methyl Acetate	Methylcyclohexane	PCE	1,1,1 TCA	1,1,2 TCFE
4'-5'	4.9U	4.9U	**7.1**	4.9U	4.9U	**53**	**11**
9'-10'	**33**	**19**	5.2UJ	**5.8J**	**19**	**860**	**14J**

DPT-2	1,1,1 TCA	1,1,2 TCA
3'-4'	**46**	5.3U
9'-10'	**31**	5.6

DPT-3	1,1,1 TCA
4'-5'	**22**
9'-10'	**36**

DPT-4	1,1,1 TCA	1,1,2 TCFE
3'-5'	**18**	5.6U
9'-10'	**92**	8

DPT-7	1,1 DCE	cis-1,2 DCE	Methylcyclohexane	PCE	1,1,2 TCA
4'-5'	**9.1J**	5.2U	5.2U	**30**	**360**
9'-10'	**5.2U**	**7.9**	**11**	**16**	**170**

DPT-5	Methylcyclohexane	1,1,1 TCA
4'-5'	5.5U	**7**
9'-10'	**7.2J**	**15**

DPT-8	1,1 DCE	Methylcyclohexane	1,1,1 TCA	1,1,2 TCA
4'-5'	5.6U	5.6U	**30**	5.6U
9'-10'	**8.2**	**8.2J**	5.5U	**47J**

DPT-12	1,1 DCE	cis-1,2 DCE	1,1,1 TCA	1,1,2 TCA
4'-5'	**5.5**	**12**	**120**	5.0U
9'-10'	**13**	**120**	5.3U	**380**

DPT-10	1,1 DCE	cis-1,2 DCE	Methylcyclohexane	PCE	1,1,2 TCA	1,1,2 TCFE
4'-5'	**6.9J**	**13J**	5.1U	**22**	**190**	**7.3**
9'-10'	**15**	**45**	**7.2**	**39**	**1700**	**15**

DPT-16	cis-1,2 DCE	1,1,1 TCA	1,1,2 TCA
4'-5'	**12**	5.3U	**170**
9'-10'	**49**	**160**	5.9U

DPT-11	1,1 DCE	PCE	1,1,2 TCA
4'-5'	**6.4**	**13**	**200J**
9'-10'	330U	330U	**1300**

DPT-9	1,1 DCE	PCE	1,1,1 TCA	1,1,2 TCFE
4'-5'	**7.6**	5.3U	**96**	**9.5**
9'-10'	**21**	**5.7**	**230J**	**17**

DPT-20	cis-1,2 DCE	1,1,2 TCA
4'-5'	**24**	**110**
9'-10'	**14**	**40**

DPT-13	1,1 DCE	1,1,1 TCA	1,1,2 TCFE
3'-5'	5.2U	**64**	**6.7**
9'-10'	**7.3**	**230J**	**13**

DPT-19	cis-1,2 DCE	1,1,2 TCA
4'-5'	**30**	**160**
9'-10'	**39**	**86**

DPT-15	1,1 DCE	cis-1,2 DCE	PCE	1,1,2 TCA	1,1,2 TCFE
4'-5'	**5.8**	**30**	4.6U	**290**	4.6U
9'-10'	**22**	**160**	**5.1**	**680**	**6.4**

DPT-17	1,1,1 TCA
4'-5'	**7.8**
9'-10'	**13**

DPT-18	1,1,1 TCA	1,1,2 TCFE
4'-5'	**20**	**9.1**
9'-10'	**79**	**9**

DPT-14	1,1 DCE	cis-1,2 DCE	PCE	1,1,1 TCA	1,1,2 TCA	1,1,2 TCFE
4'-5'	**32**	**5.3**	**14**	5.0U	**530**	**16**
9'-10'	**80J**	**24J**	**24**	**950**	4.6U	**19**

Legend
- Oil pit location
- DPT soil sample location
- Approximate property boundary

DPT Direct push technology
DCE Dichloroethene
J Estimated result
PCE Tetrachloroethene
TCE Trichloroethene
TCA Trichloroethane
TCFE Trichlorotrifluoroethane
U Not detected
VOC Volatile Organic Compound
µg/kg Micrograms per kilogram

Note:
All values in µg/kg

N
0 25 50
Feet

Source: Esri, ArcGIS Online, World Imagery, 2020

Tanglefoot Lane Site
Bettendorf, Iowa

Figure 5
VOC Results From Soil Samples Map

TETRA TECH

Date 7/9/2021 Drawn By Rose Micke Project No X903021F0035.000

X:\GIS\903021F0035000\Projects\mxd\Figure5.mxd

APPENDIX B

LOGBOOK

5/3/21 Tanglefoot Lane

0700	STMs [redacted] at Tetra Tech field office. Pack up supplies and vehicles.
0745	Leave office for Tanglefoot Lane site.
1305	Arrive to Tanglefoot Lane Site.
1315	START surveys the site. Lays down flags of proposed DPT locations.
1400	While STM [redacted] is placing DPT flags, STM [redacted] is completing some paperwork.
1500	The Geoprobe arrives and START continues surveying the site.
1540	Moderate rain with forecasted heavy rain soon.
1630	Cancel work due to weather.

[redacted] 5/3/21

5/4/21 Tanglefoot Lane

0700	STMs [redacted] at site.
0716	Geoprobe will start at DPT-4 at 41.560582, -90.473501.
0728 TB	Collect ~~DPT~~ TB 2021-DPT-4-(3'-5') 8811-1 MS/MSD
0730	Collect DPT-4-(9'-10') 8811-2
0755	Collect DPT-8 (4'-5') 8811-3
0800	Collect DPT-8 (9'-10') 8811-4
0815	Collect DPT-12 (4'-5') 8811-5
0820	Collect DPT-12 (9'-10') 8811-6
0830	Collect DPT-16 (4'-5') 8811-7
0835	Collect DPT-16 (9'-10') 8811-8
0850	Collect DPT-20 (4'-5') 8811-9
0855	Collect DPT-20 (9'-10') 8811-10
0915	Collect DPT-19 (4'-5') 8811-11
0920	Collect DPT-19 (9'-10') 8811-12
0935	Collect DPT-15 (4'-5') 8811-13
~~0937~~ TB 0940	Collect DPT-15 (9'-10') 8811-14
1000	Collect DPT-11 (4'-5') 8811-15
1005	Collect DPT-11 (9'-10') 8811-16
	PID of 5.6 ppm at 10' in DPT-11
1015	Collect DPT-7 (4'-5') 8811-17
1020	Collect DPT-7 (9'-10') 8811-18
	PID of 4.7 ppm at 10' of DPT-7
1030	Collect DPT-3 (4'-5') 8811-19
1035	Collect DPT-3 (9'-10') Peter in the Rain!

5/4/21 Tanglefoot Lane

1050	Collect DPT-2 (3'-4') 8811-21
1055	Collect DPT-2 (9'-10') 8811-22
1105	Collect DPT-10 (4'-5') 8811-23
1110	Collect DPT-10 (9'-10') 8811-24
1125	Collect DPT-14 (4'-5') 8811-25
1130	Collect DPT-14 (9'-10') 8811-26
1140	Collect DPT-18 (4'-5') 8811-27
1145	Collect DPT-18 (9'-10') 8811-28
1200	Collect DPT-17 (4'-5') 8811-29
1205	Collect DPT-17 (9'-10') 8811-30
1245	Collect DPT-13 ($4'_{TB}$-5') 8811-31
	Collect MS/MSD for 8811-31.
1250	Collect DPT-13 (9'-10') 8811-32
1310	Collect DPT-6 (4'-5') 8811-33
1315	Collect DPT-6 (9'-10') 8811-34
1330	Collect DPT-9 (4'-5') 8811-35
1335	Collect DPT-9 (9'-10') 8811-36
1340	Collect DPT-5 (4'-5') 8811-37
1345	Collect DPT-5 (9'-10') 8811-38
1355	Collect DPT-1 (4'-5') 8811-39
1400	Collect DPT-1 (9'-10') 8811-40
1410	Collect rinsate blank. 8811-101
	Geoprobe crew departs site.
1415	Trip blank sample 8811-102-TB,
1430	Depart from site.
1500	Leave for Kansas City.

APPENDIX C

BORING LOGS

Boring Log Form

Site Name: Tanglefoot Lane **Boring Number:** DPT-1

Date Drilled (Start/Finish): 05/04/2021

Drilling Method: Direct Push Technology

Drilling Company: Below Ground Surface

Elevation: **Total Depth:** 10 feet

Coordinates: 41.560597, -90.473792

Depth to Water: N/A **Geologist:** (b) (4)

Project Number: 103X903021F0035 **Weather:** Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
3'-5'	0'-5'	90%	0	1		Clay	1' of top soil, semi soft, light brown silty clay, hardening at 5' High plasticity until 4', then medium plasticity.
			0	2			
			0	3			
			0	4			
			0	5			
9'-10'	5'-10'	90%	0	6			Semi hard, light brown silty clay, softening at 7 ft, slightly wet from 8' to 10'. Medium plasticity to 8' then high plasticity.
			0	7			
			0	8			
			0	9			
			0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-2
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560592, -90.473646
Geologist: (b) (4)
Depth to Water: N/A
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	90%	0	1		Clay	1' of top soil, semi soft, light brown silty clay, hardening at 5' High plasticity until 4', then medium plasticity.
			0	2			
			0	3			
			0	4			
			0	5			
9'-10'	5'-10'	80%	0	6			Semi hard, light brown silty clay, softening at 7 ft and becoming very soft to 10' slightly sandy at 10' Medium plasticity to 8' then high plasticity.
			0	7			
			0	8			
			0	9			
			0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-3
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560586, -90.473501
Geologist: (b) (4)
Depth to Water: N/A
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	90%	0	1		Clay	1' of top soil, semi soft, light brown silty clay, hardening at 5' High plasticity until 4', then medium plasticity.
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			Semi hard, light brown silty clay, softening at 7 ft and becoming very soft to 10' slightly sandy at 10' Medium plasticity to 8' then high plasticity.
			0	7			
9'-10'	5'-10'	80%	0	8			
			0	9			
			0.4	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-4
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560582, -90.473353
Geologist: (b) (4)
Depth to Water: N/A
Weather: Partly Cloudy
Project Number: 103X903021F0035

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
3'-5'	0'-5'	90%	0	1		Clay	6" of top soil, semi hard, light brown silty clay, softening at 5' very low plasticity until 4', then medium plasticity.
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			Semi hard, light brown silty clay, softening at 8 ft and becoming very soft to 10' slightly wet from 8' to 10' Medium plasticity to 8' then high plasticity.
9'-10'	5'-10'	65%	0	7			
			0	8			
			0	9			
			0.1	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-5
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560495, -90.473776
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	95%	0	1		Clay	6" of top soil, semi hard, light brown silty clay, softening at 4' medium plasticity until 3', then high plasticity to 5'.
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			very soft, light brown silty clay, slightly wet near 10' becomes semi hard at 10' Medium plasticity to 9' then high plasticity.
			0	7			
	5'-10'	75%	0	8			
9'-10'			0	9			
			0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-6
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560468, -90.473665
Geologist: (b) (4)
Depth to Water: N/A
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	60%	0	1		Clay	1' of top soil, very soft, light brown silty clay, light grey streaks throughout high plasticity throughout.
			0	2			
			0	3			
			0	4			
			0	5			
	5'-10'	100%	0	6			very soft, light brown silty clay, sandy and wet from 7' to 9', becomes brown and hard at 10', medium plasticityto 7' no plasticity from 7' to 9', high plasticity at 10'.
			0	7			
			0	8			
9'-10'			0	9			
			0.5	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-7
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560465, -90.473439
Geologist: (b) (4)
Depth to Water: N/A
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	90%	0	1		Clay	1' of top soil, semi hard, light brown silty clay, low plasticity throughout, increasing in hardness to 5'
			0	2			
			0	3			
			0	4			
			0.3	5			
9'-10'	5'-10'	75%	0.4	6			slightly hard, light brown silty clay to 8' becoming very soft with greay streaks to 10' with slight sand content medium plasticity
			0.7	7			
			1.1	8			
			1.6	9			
			4.7	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-8
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560497, -90.473286
Geologist (b) (4)
Depth to Water: N/A
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	85%	0	1		Clay	6" of top soil, semi hard, light brown silty clay, low plasticity throughout, softening near 5'
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			slightly hard, light brown silty clay to 8' becoming semi soft and slightly wet 10' medium plasticity
			0	7			
			0	8			
9'-10'	5'-10'	60%	0.2	9			
			0.5	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-9
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560360, -90.473715
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	95%	0	1		Clay	6" of top soil, semi hard, light brown silty clay to 3' then softening to 5', high plasticity to 3', then medium plasticity
			0	2			
			0	3			
			0	4			
			0	5			
9'-10'	5'-10'	75%	0	6			very soft, light brown silty clay slightly wet throughout becoming semi hard at 10' medium plasticityto 10' then high plasticity
			0	7			
			0	8			
			0	9			
			0.1	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-10
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560379, -90.473599
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	95%	0	1		Clay	1' of top soil, semi hard, light brown silty clay to 4' then softening to 5', medium plasticity
			0.3	2			
			0	3			
			0.2	4			
			0	5			
			0.3	6			semi soft, light brown silty clay to 8' then becoming very soft, slightly sandy clay low plasticity
			0.5	7			
9'-10'	5'-10'	90%	1	8			
			9	9			
			1	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-11
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560376, -90.473405
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	90%	0	1		Clay	1' of top soil, semi hard, light brown silty clay increasing in hardness to 5', low plasticity
			0	2			
			0	3			
			0	4			
			0.1	5			
9'-10'	5'-10'	85%	0	6			slightly hard, light brown silty clay to 8' then becoming very soft and slightly sandy with grey streaks to 10' medium plasticity to 8' then low plasticity
			0.1	7			
			0.3	8			
			0.6	9			
			5.6	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-12
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560394, -90.473255
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	80%	0	1		Clay	6" of top soil, semi hard, light brown silty clay softening near 5', low plasticity slightly darker brown from 2' to 3'
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			slightly hard, light brown silty clay to 8' then becoming semi soft and slightly sandy with reddish with grey streaks to 10' medium plasticity to 8' then low plasticity slightly wet from 8' to 10'
9'-10'	5'-10'	80%	0.2	7			
			0	8			
			0	9			
			0.2	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-13
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560260, -90.473779
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
3'-5'	0'-5'	90%	0	1		Clay	1' of top soil, soft, light brown silty clay little to no plasticity
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			soft, light brown silty clay to 8' then hardening amd becoming dark brown to 10' and becoming very hard at 10' medium plasticity to 8' then high plasticity
			0	7			
	5'-10'	95%	0	8			
9'-10'			0.2	9			
			0.1	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-14
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560254, -90.473590
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	95%	0	1		Clay	6" of top soil, semi hard, light brown silty clay softening near 5' high plasticity
			0	2			
			0	3			
			0	4			
			0.5	5			
9'-10'	5'-10'	80%	0	6			very soft, light brown silty clay with high water content and sand content at 6' hardening at 9' and becoming darker brown, high plasticity
			0	7			
			0	8			
			0	9			
			0.1	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-15
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560286, -90.473385
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	80%	0.3	1		Clay	6" of top soil, semi soft, light brown silty clay becoming darker in color and harder near 4' medium plasticity
			0	2			
			0	3			
			0.2	4			
			0.1	5			
			1.1	6			soft, light brown silty clay, light grey pockets 7' hardening and becoming darker in color to 10', little to no plasticity
			0.4	7			
			0.1	8			
			0	9			
9'-10'	5'-10'	100%	0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-16
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560323, -90.473251
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	45%	0	1		Clay	very little recovery due to large tree root impacting upper portion of boring semi soft, light brown silty clay becoming darker in color near 4' low plasticity
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			semi hard, brown silty clay, hardening to 9' and becoming very hard from 9' to 10', little to no plasticity
			0	7			
	5'-10'	100%	0	8			
9'-10'			0.3	9			
			0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-17
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560195, -90.473831
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	100%	0	1		Clay	6" of top soil, soft, brown silty clay becoming semi hard at 3' and softening at 5' medium plasticity
			0	2			
			0	3			
			0	4			
			0	5			
9'-10'	5'-10'	100%	0	6			semi hard, brown silty clay with reddish streaks starting at 8' and becoming very hard near 10' with slight sand content medium plasticity
			0	7			
			0	8			
			0	9			
			0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-18
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560191, -90.473631
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	90%	0	1		Clay	6" of top soil, soft, brown silty clay becoming semi hard at 3' and softening at 5' medium plasticity
			0	2			
			0	3			
			0	4			
			0	5			
9'-10'	5'-10'	100%	0	6			semi hard, brown silty clay with reddish streaks starting at 8' and becoming very hard near 10' medium plasticity
			0	7			
			0	8			
			0	9			
			0.1	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-19
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560201, -90.473354
Depth to Water: N/A
Geologist: (b) (3) (B), (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	95%	0	1		Clay	4" of top soil, semi soft, light brown silty clay becoming semi hard at 3' and darker in color to 5' medium plasticity
			0	2			
			0.1	3			
			0	4			
			0	5			
9'-10'	5'-10'	90%	0.5	6			hard, dark brown silty clay with reddish streaks with color becoming red near 9' with pockets of grey and becoming very hard near 10' little to o plasticity
			0.3	7			
			0	8			
			0	9			
			0	10			

Boring Log Form

Site Name: Tanglefoot Lane
Boring Number: DPT-20
Date Drilled (Start/Finish): 05/04/2021
Drilling Method: Direct Push Technology
Drilling Company: Below Ground Surface
Elevation:
Total Depth: 10 feet
Coordinates: 41.560218, -90.473214
Depth to Water: N/A
Geologist: (b) (4)
Project Number: 103X903021F0035
Weather: Partly Cloudy

Sample Interval	Interval	Soil Recv.	PID Reading (ppm)	Depth (Feet)	Color (Munsell or Rock)	Lithology	Description and Remarks
4'-5'	0'-5'	95%	0	1		Clay	very little top soil, semi soft, light brown silty clay becoming semi hard at 3' and darker in color to 5' low plasticity
			0	2			
			0	3			
			0	4			
			0	5			
			0	6			
9'-10'	5'-10'	100%	0	7			very hard, dark brown silty clay becoming lighter in color with reddish streaks at 7', little to o plasticity
			0	8			
			0	9			
			0	10			

APPENDIX D

PHOTO LOG

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows direct-push technology (DPT)-4 soil core from 0-5 feet below ground surface (bgs). Sample collected within 3-5 feet bgs identified as 8811-1.	1
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-4 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-2.	2
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-8 soil core from 0-5 feet bgs. Sample collected within 4-5 feet bgs identified as 8811-3.	3
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-8 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-4.	4
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-12 soil core from 0-5 feet bgs. Sample collected within 4-5 feet bgs identified as 8811-5.	5
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-12 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-6.	6
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-16 soil core from 0-5 feet bgs. Sample collected within 4-5 feet bgs identified as 8811-7.	7
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-16 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-8.	8
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-20 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-9.	9
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-20 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-10.	10
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-19 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-11.	11
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-19 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-12.	12
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-15 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-13.	13
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-15 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-14.	14
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-11 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-15.	15
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-11 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-16.	16
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-7 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-17.	17
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-7 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-18.	18
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-3 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-19.	19
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-3 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-20.	20
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-2 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-21.	21
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-2 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-22.	22
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-10 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-23.	23
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-10 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-24.	24
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-14 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-25.	25
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-14 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-26.	26
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-18 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-27.	27
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-18 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-28.	28
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-17 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-29.	29
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-17 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-30.	30
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-13 soil core from 0-5 bgs. Sample collected within 3-5 feet bgs identified as 8811-31.	31
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-13 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-32.	32
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-6 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-33.	33
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-6 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-34.	34
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4) [redacted]	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-9 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-35.	35
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-9 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-36.	36
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-5 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-37.	37
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-5 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-38.	38
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

Tanglefoot Lane Removal Assessment
Bettendorf, Iowa

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-1 soil core from 0-5 bgs. Sample collected within 4-5 feet bgs identified as 8811-39.	39
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

TETRA TECH PROJECT NO. 103X903021F0035	DESCRIPTION	This photograph shows DPT-1 soil core from 5-10 feet bgs. Sample collected within 9-10 feet bgs identified as 8811-40.	40
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	(b) (4)	5/4/2021

APPENDIX E

ANALYTICAL DATA ASR 8811

United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101

Date: 06/07/2021

Subject: Transmittal of Sample Analysis Results for ASR #: 8811

Project ID: AGB7C7

Project Description: Tanglefoot Lane

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Laboratory Services and Applied Sciences Division

To: Andrew Gieseke
SEMD/AERR/RREP

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our LSASD records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Project Manager: Andrew Gieseke **Org:** SEMD/AERR/REP **Phone:** 913-551-7024

Project ID: AGB7C7 **QAPP Number:** 2021087

Project Desc: Tanglefoot Lane

Location: Bettendorf **State:** Iowa **Program:** Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Purpose: Site Cleanup Support **GPRA PRC:** 000DC6

DPT soil sampling for removal assessment of Tanglefoot Lane site.

Submitted ASR dated 3/1/2021 noted that this ASR is not part of a litigation hold activity at this time.

GPRA/site code check ok per JE on 3/2/2021.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FB = Field Blank

Units: Specific units in which results are reported.

ug/kg = Micrograms per Kilogram
ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 8811 **Sample Information Summary** **06/07/2021**

Project ID: AGB7C7 **Project Desc:** Tanglefoot Lane

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	- __	Solid	DPT-4 (3'-5')		05/04/2021	07:27			05/05/2021
2	- __	Solid	DPT-4 (9'-10')		05/04/2021	07:30			05/05/2021
3	- __	Solid	DPT-8 (4'-5')		05/04/2021	07:55			05/05/2021
4	- __	Solid	DPT-8 (9'-10')		05/04/2021	08:00			05/05/2021
5	- __	Solid	DPT-12 (4'-5')		05/04/2021	08:15			05/05/2021
6	- __	Solid	DPT-12 (9'-10')		05/04/2021	08:20			05/05/2021
7	- __	Solid	DPT-16(4'-5')		05/04/2021	08:30			05/05/2021
8	- __	Solid	DPT-16 (9'-10')		05/04/2021	08:35			05/05/2021
9	- __	Solid	DPT-20 (4'-5')		05/04/2021	08:50			05/05/2021
10	- __	Solid	DPT-20 (9'-10')		05/04/2021	08:55			05/05/2021
11	- __	Solid	DPT-19 (4'-5')		05/04/2021	09:15			05/05/2021
12	- __	Solid	DPT-19 (9'-10')		05/04/2021	09:20			05/05/2021
13	- __	Solid	DPT-15 (4'-5')		05/04/2021	09:35			05/05/2021
14	- __	Solid	DPT-15 (9'-10')		05/04/2021	09:40			05/05/2021
15	- __	Solid	DPT-11 (4'-5')		05/04/2021	10:00			05/05/2021
16	- __	Solid	DPT-11 (9'-10')		05/04/2021	10:05			05/05/2021
17	- __	Solid	DPT-7 (4'-5')		05/04/2021	10:15			05/05/2021
18	- __	Solid	DPT-7 (9'-10')		05/04/2021	10:20			05/05/2021
19	- __	Solid	DPT-3 (4'-5')		05/04/2021	10:30			05/05/2021
20	- __	Solid	DPT-3 (9'-10')		05/04/2021	10:35			05/05/2021
21	- __	Solid	DPT-2 (3'-4')		05/04/2021	10:50			05/05/2021
22	- __	Solid	DPT-2 (9'-10')		05/04/2021	10:55			05/05/2021
23	- __	Solid	DPT-10 (4'-5')		05/04/2021	11:05			05/05/2021
24	- __	Solid	DPT-10 (9'-10')		05/04/2021	11:10			05/05/2021
25	- __	Solid	DPT-14 (4'-5')		05/04/2021	11:25			05/05/2021
26	- __	Solid	DPT-14 (9'-10')		05/04/2021	11:30			05/05/2021
27	- __	Solid	DPT-18 (4'-5')		05/04/2021	11:40			05/05/2021
28	- __	Solid	DPT-18 (9'-10')		05/04/2021	11:45			05/05/2021
29	- __	Solid	DPT-17 (4'-5')		05/04/2021	12:00			05/05/2021
30	- __	Solid	DPT-17 (9'-10')		05/04/2021	12:05			05/05/2021
31	- __	Solid	DPT-13 (3'-5')		05/04/2021	12:45			05/05/2021
32	- __	Solid	DPT-13 (9'-10')		05/04/2021	12:50			05/05/2021
33	- __	Solid	DPT-6 (4'-5')		05/04/2021	13:10			05/05/2021
34	- __	Solid	DPT-6 (9'-10')		05/04/2021	13:15			05/05/2021
35	- __	Solid	DPT-9 (4'-5')		05/04/2021	13:30			05/05/2021
36	- __	Solid	DPT-9 (9'-10')		05/04/2021	13:35			05/05/2021
37	- __	Solid	DPT-5 (4'-5')		05/04/2021	13:40			05/05/2021
38	- __	Solid	DPT-5 (9'-10')		05/04/2021	13:45			05/05/2021
39	- __	Solid	DPT-1 (4'-5')		05/04/2021	13:55			05/05/2021
40	- __	Solid	DPT-1 (9'-10')		05/04/2021	14:00			05/05/2021
101	- __	Water	VOA & PCB Rinsate sample		05/04/2021	14:10			05/05/2021
102	- FB	Water	Routine VOA Trip Blank sample		05/04/2021	14:15			05/05/2021

Analysis **Comments About Results For This Analysis**

1 PCBs in Solids by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples:

1-__	2-__	3-__	4-__	5-__	6-__	7-__
8-__	9-__	10-__	11-__	12-__	13-__	14-__
15-__	16-__	17-__	18-__	19-__	20-__	21-__
22-__	23-__	24-__	25-__	26-__	27-__	28-__
29-__	30-__	31-__	32-__	33-__	34-__	35-__
36-__	37-__	38-__	39-__	40-__		

Comments:

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples:

1-__	2-__	3-__	4-__	5-__	6-__	7-__
8-__	9-__	10-__	11-__	12-__	13-__	14-__
15-__	16-__	17-__	18-__	19-__	20-__	21-__
22-__	23-__	24-__	25-__	26-__	27-__	28-__
29-__	30-__	31-__	32-__	33-__	34-__	35-__
36-__	37-__	38-__	39-__	40-__		

Comments:

To protect the integrity of the instrument, sample -16 was analyzed at a medium level VOA analysis only. Therefore, the reporting limits were raised by a factor of 50 times for sample -16.

Trichloroethene was diluted below the RL in the medium level analysis of samples -7 and -8; and 1,1,1-Trichloroethane was diluted below the RL in the medium level analysis of samples -15, -32 and -36. Therefore, the results were reported from the undiluted (low level) analysis. Trichloroethene was J-coded in samples -7 and -8. 1,1,1-Trichloroethane was J-coded in samples -15, -32 and -36. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to the reported values exceeding the calibrated range of the instrument.

Carbon Tetrachloride, 1,2-Dibromoethane, 1,2-Dichloroethane, Methyl Acetate, Methyl-tert-butyl-Ether, Trichlorofluoromethane and 1,1,2-Trichlorotrifluoroethane were UJ-coded in sample -4; and Carbon Tetrachloride, 1,2-Dibromoethane, 1,2-Dichloroethane, Methyl Acetate, Methyl-tert-butyl-Ether and Trichlorofluoromethane were UJ-coded in sample -34. Bromodichloromethane, Cyclohexane and 1,2-Dichloropropane were UJ-coded in samples -4, -34 and -38. Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene were UJ-coded in

Analysis	Comments About Results For This Analysis

samples -4, -5, -6, -12, -14, -22, -24, -33, -34, -38 and -39. These analytes were not found in the samples at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to low recoveries of surrogate analytes. The actual reporting limits for these analytes may be higher than the reported values.
1,1,1-Trichloroethane was J-coded in sample -4. 1,1,2-Trichlorotrifluoroethane was J-coded in sample -34; Methylcyclohexane was J-coded in samples -4, -34 and -38. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to low recoveries of surrogate analytes in these samples. The actual concentration for this analyte may be higher than the reported value.
1,1-Dichloroethene was J-coded in samples -17, -23 and -26. cis-1,2-Dichloroethene was J-coded in samples -23 and -26. Acetone was J-coded in samples -18, -19 and -24. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to high recoveries of surrogate analytes in these samples. The actual concentrations for these analytes may be lower than the reported values.

Trichloroethene was J-coded in sample -31. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

Trichloroethene was J-coded in sample -1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate.

1 Pesticides in Water by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 101-__

Comments:
(N/A)

1 VOCs in Water by GC/MS

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 101-__ 102-FB

Comments:

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1221	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1232	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1242	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1248	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1254	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1260	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1262	ug/kg	41 U	41 U	41 U	40 U
Aroclor 1268	ug/kg	41 U	41 U	41 U	40 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	46	26	76	14
Benzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Bromochloromethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Bromodichloromethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
Bromoform	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Bromomethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
2-Butanone	ug/kg	11 U	9.3 U	11	11 U
Carbon Disulfide	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Carbon Tetrachloride	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
Chlorobenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
Chloroethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Chloroform	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Chloromethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Cyclohexane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,2-Dibromo-3-Chloropropane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Dibromochloromethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
1,2-Dibromoethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,2-Dichlorobenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,3-Dichlorobenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,4-Dichlorobenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
Dichlorodifluoromethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
1,1-Dichloroethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
1,2-Dichloroethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,1-Dichloroethene	ug/kg	5.6 U	22	5.6 U	8.2
cis-1,2-Dichloroethene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
trans-1,2-Dichloroethene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
1,2-Dichloropropane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
cis-1,3-Dichloropropene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
trans-1,3-Dichloropropene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Ethyl Benzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
2-Hexanone	ug/kg	11 U	9.3 U	11 U	11 U
Isopropylbenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Methyl Acetate	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
Methyl tert-butyl ether	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
Methylcyclohexane	ug/kg	5.6 U	4.7 U	5.6 U	8.2 J

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
Methylene Chloride	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
4-Methyl-2-Pentanone	ug/kg	11 U	9.3 U	11 U	11 U
Styrene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
1,1,2,2-Tetrachloroethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Tetrachloroethene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Toluene	ug/kg	5.6 U	4.7 U	5.6 U	8.7
1,2,3-Trichlorobenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,2,4-Trichlorobenzene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,1,1-Trichloroethane	ug/kg	18	92	30	47 J
1,1,2-Trichloroethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
Trichloroethene	ug/kg	27 J	180	55	160
Trichlorofluoromethane	ug/kg	5.6 U	4.7 U	5.6 U	5.5 UJ
1,1,2-Trichlorotrifluoroethane	ug/kg	5.6 U	8.0	5.6 U	5.5 UJ
Vinyl Chloride	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
m and/or p-Xylene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U
o-Xylene	ug/kg	5.6 U	4.7 U	5.6 U	5.5 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1221	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1232	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1242	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1248	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1254	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1260	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1262	ug/kg	40 U	39 U	40 U	37 U
Aroclor 1268	ug/kg	40 U	39 U	40 U	37 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	99	15	53	20
Benzene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Bromochloromethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Bromodichloromethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Bromoform	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Bromomethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
2-Butanone	ug/kg	12	11 U	11 U	12 U
Carbon Disulfide	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Carbon Tetrachloride	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Chlorobenzene	ug/kg	5.0 UJ	5.3 UJ	5.3 U	5.9 U
Chloroethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Chloroform	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Chloromethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Cyclohexane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Dibromochloromethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,2-Dibromoethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,2-Dichlorobenzene	ug/kg	5.0 UJ	5.3 UJ	5.3 U	5.9 U
1,3-Dichlorobenzene	ug/kg	5.0 UJ	5.3 UJ	5.3 U	5.9 U
1,4-Dichlorobenzene	ug/kg	5.0 UJ	5.3 UJ	5.3 U	5.9 U
Dichlorodifluoromethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,1-Dichloroethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,2-Dichloroethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,1-Dichloroethene	ug/kg	5.5	13	5.3 U	5.9 U
cis-1,2-Dichloroethene	ug/kg	12	120	12	49
trans-1,2-Dichloroethene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,2-Dichloropropane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
cis-1,3-Dichloropropene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
trans-1,3-Dichloropropene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Ethyl Benzene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
2-Hexanone	ug/kg	9.9 U	11 U	11 U	12 U
Isopropylbenzene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Methyl Acetate	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Methyl tert-butyl ether	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Methylcyclohexane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
Methylene Chloride	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
4-Methyl-2-Pentanone	ug/kg	9.9 U	11 U	11 U	12 U
Styrene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,1,2,2-Tetrachloroethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Tetrachloroethene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Toluene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,2,3-Trichlorobenzene	ug/kg	5.0 UJ	5.3 UJ	5.3 U	5.9 U
1,2,4-Trichlorobenzene	ug/kg	5.0 UJ	5.3 UJ	5.3 U	5.9 U
1,1,1-Trichloroethane	ug/kg	120	380	170	160
1,1,2-Trichloroethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Trichloroethene	ug/kg	140	590	190 J	230 J
Trichlorofluoromethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
Vinyl Chloride	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
m and/or p-Xylene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U
o-Xylene	ug/kg	5.0 U	5.3 U	5.3 U	5.9 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1221	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1232	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1242	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1248	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1254	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1260	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1262	ug/kg	39 U	37 U	40 U	37 U
Aroclor 1268	ug/kg	39 U	37 U	40 U	37 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	14	13	19	9.7 U
Benzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Bromochloromethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Bromodichloromethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Bromoform	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Bromomethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
2-Butanone	ug/kg	10 U	13 U	10 U	9.7 U
Carbon Disulfide	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Carbon Tetrachloride	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Chlorobenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 UJ
Chloroethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Chloroform	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Chloromethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Cyclohexane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Dibromochloromethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,2-Dibromoethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,2-Dichlorobenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 UJ
1,3-Dichlorobenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 UJ
1,4-Dichlorobenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 UJ
Dichlorodifluoromethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,1-Dichloroethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,2-Dichloroethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,1-Dichloroethene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
cis-1,2-Dichloroethene	ug/kg	24	14	30	39
trans-1,2-Dichloroethene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,2-Dichloropropane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
cis-1,3-Dichloropropene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
trans-1,3-Dichloropropene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Ethyl Benzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
2-Hexanone	ug/kg	10 U	13 U	10 U	9.7 U
Isopropylbenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Methyl Acetate	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Methyl tert-butyl ether	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Methylcyclohexane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
Methylene Chloride	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
4-Methyl-2-Pentanone	ug/kg	10 U	13 U	10 U	9.7 U
Styrene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,1,2,2-Tetrachloroethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Tetrachloroethene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Toluene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,2,3-Trichlorobenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 UJ
1,2,4-Trichlorobenzene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 UJ
1,1,1-Trichloroethane	ug/kg	110	40	160	86
1,1,2-Trichloroethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Trichloroethene	ug/kg	140	66	390	160
Trichlorofluoromethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
Vinyl Chloride	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
m and/or p-Xylene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U
o-Xylene	ug/kg	5.1 U	6.3 U	5.0 U	4.9 U

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1221	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1232	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1242	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1248	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1254	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1260	ug/kg	40 U	40 U	39 U	120
Aroclor 1262	ug/kg	40 U	40 U	39 U	39 U
Aroclor 1268	ug/kg	40 U	40 U	39 U	39 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	110	12	61	670 U
Benzene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Bromochloromethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Bromodichloromethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Bromoform	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Bromomethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
2-Butanone	ug/kg	12	9.8 U	9.4 U	670 U
Carbon Disulfide	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Carbon Tetrachloride	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Chlorobenzene	ug/kg	4.6 U	4.9 UJ	4.7 U	330 U
Chloroethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Chloroform	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Chloromethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Cyclohexane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,2-Dibromo-3-Chloropropane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Dibromochloromethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,2-Dibromoethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,2-Dichlorobenzene	ug/kg	4.6 U	4.9 UJ	4.7 U	330 U
1,3-Dichlorobenzene	ug/kg	4.6 U	4.9 UJ	4.7 U	330 U
1,4-Dichlorobenzene	ug/kg	4.6 U	4.9 UJ	4.7 U	330 U
Dichlorodifluoromethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,1-Dichloroethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,2-Dichloroethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,1-Dichloroethene	ug/kg	5.8	22	6.4	330 U
cis-1,2-Dichloroethene	ug/kg	30	160	4.7 U	330 U
trans-1,2-Dichloroethene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,2-Dichloropropane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
cis-1,3-Dichloropropene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
trans-1,3-Dichloropropene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Ethyl Benzene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
2-Hexanone	ug/kg	9.2 U	9.8 U	9.4 U	670 U
Isopropylbenzene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Methyl Acetate	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Methyl tert-butyl ether	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Methylcyclohexane	ug/kg	4.6 U	4.9 U	4.7 U	330 U

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
Methylene Chloride	ug/kg	4.6 U	4.9 U	4.7 U	330 U
4-Methyl-2-Pentanone	ug/kg	9.2 U	9.8 U	9.4 U	670 U
Styrene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,1,2,2-Tetrachloroethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Tetrachloroethene	ug/kg	4.6 U	5.1	13	330 U
Toluene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,2,3-Trichlorobenzene	ug/kg	4.6 U	4.9 UJ	4.7 U	330 U
1,2,4-Trichlorobenzene	ug/kg	4.6 U	4.9 UJ	4.7 U	330 U
1,1,1-Trichloroethane	ug/kg	290	680	200 J	1300
1,1,2-Trichloroethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
Trichloroethene	ug/kg	870	1400	300	2900
Trichlorofluoromethane	ug/kg	4.6 U	4.9 U	4.7 U	330 U
1,1,2-Trichlorotrifluoroethane	ug/kg	4.6 U	6.4	4.7 U	330 U
Vinyl Chloride	ug/kg	4.6 U	4.9 U	4.7 U	330 U
m and/or p-Xylene	ug/kg	4.6 U	4.9 U	4.7 U	330 U
o-Xylene	ug/kg	4.6 U	4.9 U	4.7 U	330 U

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1221	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1232	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1242	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1248	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1254	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1260	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1262	ug/kg	40 U	40 U	41 U	39 U
Aroclor 1268	ug/kg	40 U	40 U	41 U	39 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	140	24 J	94 J	14
Benzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Bromochloromethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Bromodichloromethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Bromoform	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Bromomethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
2-Butanone	ug/kg	10 U	12 U	10 U	13 U
Carbon Disulfide	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Carbon Tetrachloride	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Chlorobenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Chloroethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Chloroform	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Chloromethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Cyclohexane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Dibromochloromethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,2-Dibromoethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,2-Dichlorobenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,3-Dichlorobenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,4-Dichlorobenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Dichlorodifluoromethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,1-Dichloroethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,2-Dichloroethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,1-Dichloroethene	ug/kg	9.1 J	6.1 U	5.1 U	6.4 U
cis-1,2-Dichloroethene	ug/kg	5.2 U	7.9	5.1 U	6.4 U
trans-1,2-Dichloroethene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,2-Dichloropropane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
cis-1,3-Dichloropropene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
trans-1,3-Dichloropropene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Ethyl Benzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
2-Hexanone	ug/kg	10 U	12 U	10 U	13 U
Isopropylbenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Methyl Acetate	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Methyl tert-butyl ether	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Methylcyclohexane	ug/kg	5.2 U	11	5.1 U	6.4 U

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
Methylene Chloride	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
4-Methyl-2-Pentanone	ug/kg	10 U	12 U	10 U	13 U
Styrene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,1,2,2-Tetrachloroethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Tetrachloroethene	ug/kg	30	16	5.1 U	6.4 U
Toluene	ug/kg	5.2 U	7.6	5.1 U	6.4 U
1,2,3-Trichlorobenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,2,4-Trichlorobenzene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,1,1-Trichloroethane	ug/kg	360	170	22	36
1,1,2-Trichloroethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Trichloroethene	ug/kg	670	3400	31	82
Trichlorofluoromethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
Vinyl Chloride	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
m and/or p-Xylene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U
o-Xylene	ug/kg	5.2 U	6.1 U	5.1 U	6.4 U

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1221	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1232	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1242	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1248	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1254	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1260	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1262	ug/kg	40 U	39 U	40 U	40 U
Aroclor 1268	ug/kg	40 U	39 U	40 U	40 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	57	13	57	16 J
Benzene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Bromochloromethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Bromodichloromethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Bromoform	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Bromomethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
2-Butanone	ug/kg	11 U	11 U	10 U	11 U
Carbon Disulfide	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Carbon Tetrachloride	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Chlorobenzene	ug/kg	5.3 U	5.6 UJ	5.1 U	5.6 UJ
Chloroethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Chloroform	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Chloromethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Cyclohexane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Dibromochloromethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,2-Dibromoethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,2-Dichlorobenzene	ug/kg	5.3 U	5.6 UJ	5.1 U	5.6 UJ
1,3-Dichlorobenzene	ug/kg	5.3 U	5.6 UJ	5.1 U	5.6 UJ
1,4-Dichlorobenzene	ug/kg	5.3 U	5.6 UJ	5.1 U	5.6 UJ
Dichlorodifluoromethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,1-Dichloroethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,2-Dichloroethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,1-Dichloroethene	ug/kg	5.3 U	5.6 U	6.9 J	15
cis-1,2-Dichloroethene	ug/kg	5.3 U	5.6 U	13 J	45
trans-1,2-Dichloroethene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,2-Dichloropropane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
cis-1,3-Dichloropropene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
trans-1,3-Dichloropropene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Ethyl Benzene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
2-Hexanone	ug/kg	11 U	11 U	10 U	11 U
Isopropylbenzene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Methyl Acetate	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Methyl tert-butyl ether	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Methylcyclohexane	ug/kg	5.3 U	5.6 U	5.1 U	7.2

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
Methylene Chloride	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
4-Methyl-2-Pentanone	ug/kg	11 U	11 U	10 U	11 U
Styrene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,1,2,2-Tetrachloroethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Tetrachloroethene	ug/kg	5.3 U	5.6 U	22	39
Toluene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,2,3-Trichlorobenzene	ug/kg	5.3 U	5.6 UJ	5.1 U	5.6 UJ
1,2,4-Trichlorobenzene	ug/kg	5.3 U	5.6 UJ	5.1 U	5.6 UJ
1,1,1-Trichloroethane	ug/kg	46	31	190	1700
1,1,2-Trichloroethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
Trichloroethene	ug/kg	52	57	660	5000
Trichlorofluoromethane	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.3 U	5.6	7.3	15
Vinyl Chloride	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
m and/or p-Xylene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U
o-Xylene	ug/kg	5.3 U	5.6 U	5.1 U	5.6 U

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1221	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1232	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1242	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1248	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1254	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1260	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1262	ug/kg	41 U	40 U	40 U	38 U
Aroclor 1268	ug/kg	41 U	40 U	40 U	38 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	85	21	31	45
Benzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Bromochloromethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Bromodichloromethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Bromoform	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Bromomethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
2-Butanone	ug/kg	11	9.3 U	11 U	9.8 U
Carbon Disulfide	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Carbon Tetrachloride	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Chlorobenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Chloroethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Chloroform	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Chloromethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Cyclohexane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Dibromochloromethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2-Dibromoethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2-Dichlorobenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,3-Dichlorobenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,4-Dichlorobenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Dichlorodifluoromethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,1-Dichloroethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2-Dichloroethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,1-Dichloroethene	ug/kg	32	80 J	5.4 U	4.9 U
cis-1,2-Dichloroethene	ug/kg	5.3	24 J	5.4 U	4.9 U
trans-1,2-Dichloroethene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2-Dichloropropane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
cis-1,3-Dichloropropene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
trans-1,3-Dichloropropene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Ethyl Benzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
2-Hexanone	ug/kg	10 U	9.3 U	11 U	9.8 U
Isopropylbenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Methyl Acetate	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Methyl tert-butyl ether	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Methylcyclohexane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
Methylene Chloride	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
4-Methyl-2-Pentanone	ug/kg	10 U	9.3 U	11 U	9.8 U
Styrene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,1,2,2-Tetrachloroethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Tetrachloroethene	ug/kg	14	24	5.4 U	4.9 U
Toluene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2,3-Trichlorobenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,2,4-Trichlorobenzene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,1,1-Trichloroethane	ug/kg	530	950	20	79
1,1,2-Trichloroethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
Trichloroethene	ug/kg	1300	3100	11	57
Trichlorofluoromethane	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
1,1,2-Trichlorotrifluoroethane	ug/kg	16	19	9.1	9.0
Vinyl Chloride	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
m and/or p-Xylene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U
o-Xylene	ug/kg	5.0 U	4.6 U	5.4 U	4.9 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1221	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1232	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1242	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1248	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1254	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1260	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1262	ug/kg	40 U	37 U	41 U	40 U
Aroclor 1268	ug/kg	40 U	37 U	41 U	40 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	110	21	84	27
Benzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Bromochloromethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Bromodichloromethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Bromoform	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Bromomethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
2-Butanone	ug/kg	10 U	9.7 U	13	10 U
Carbon Disulfide	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Carbon Tetrachloride	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Chlorobenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Chloroethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Chloroform	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Chloromethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Cyclohexane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Dibromochloromethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2-Dibromoethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2-Dichlorobenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,3-Dichlorobenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,4-Dichlorobenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Dichlorodifluoromethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,1-Dichloroethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2-Dichloroethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,1-Dichloroethene	ug/kg	5.1 U	4.8 U	5.2 U	7.3
cis-1,2-Dichloroethene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
trans-1,2-Dichloroethene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2-Dichloropropane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
cis-1,3-Dichloropropene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
trans-1,3-Dichloropropene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Ethyl Benzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
2-Hexanone	ug/kg	10 U	9.7 U	10 U	10 U
Isopropylbenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Methyl Acetate	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Methyl tert-butyl ether	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Methylcyclohexane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
Methylene Chloride	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
4-Methyl-2-Pentanone	ug/kg	10 U	9.7 U	10 U	10 U
Styrene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Tetrachloroethene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Toluene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2,3-Trichlorobenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,2,4-Trichlorobenzene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,1,1-Trichloroethane	ug/kg	7.8	13	64	230 J
1,1,2-Trichloroethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
Trichloroethene	ug/kg	6.4	17	56 J	400
Trichlorofluoromethane	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.1 U	4.8 U	6.7	13
Vinyl Chloride	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
m and/or p-Xylene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U
o-Xylene	ug/kg	5.1 U	4.8 U	5.2 U	5.0 U

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1221	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1232	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1242	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1248	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1254	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1260	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1262	ug/kg	40 U	40 U	41 U	40 U
Aroclor 1268	ug/kg	40 U	40 U	41 U	40 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	200	10	62	26
Benzene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Bromochloromethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Bromodichloromethane	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
Bromoform	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Bromomethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
2-Butanone	ug/kg	17	10 U	11 U	10 U
Carbon Disulfide	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Carbon Tetrachloride	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
Chlorobenzene	ug/kg	4.9 UJ	5.2 UJ	5.3 U	5.1 U
Chloroethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Chloroform	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Chloromethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Cyclohexane	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
1,2-Dibromo-3-Chloropropane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Dibromochloromethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
1,2-Dibromoethane	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
1,2-Dichlorobenzene	ug/kg	4.9 UJ	5.2 UJ	5.3 U	5.1 U
1,3-Dichlorobenzene	ug/kg	4.9 UJ	5.2 UJ	5.3 U	5.1 U
1,4-Dichlorobenzene	ug/kg	4.9 UJ	5.2 UJ	5.3 U	5.1 U
Dichlorodifluoromethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
1,1-Dichloroethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
1,2-Dichloroethane	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
1,1-Dichloroethene	ug/kg	4.9 U	33	7.6	21
cis-1,2-Dichloroethene	ug/kg	4.9 U	19	5.3 U	5.1 U
trans-1,2-Dichloroethene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
1,2-Dichloropropane	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
cis-1,3-Dichloropropene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
trans-1,3-Dichloropropene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Ethyl Benzene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
2-Hexanone	ug/kg	9.9 U	10 U	11 U	10 U
Isopropylbenzene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Methyl Acetate	ug/kg	7.1	5.2 UJ	5.3 U	5.1 U
Methyl tert-butyl ether	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
Methylcyclohexane	ug/kg	4.9 U	5.8 J	5.3 U	5.1 U

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
Methylene Chloride	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
4-Methyl-2-Pentanone	ug/kg	9.9 U	10 U	11 U	10 U
Styrene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
1,1,2,2-Tetrachloroethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Tetrachloroethene	ug/kg	4.9 U	19	5.3 U	5.7
Toluene	ug/kg	4.9 U	5.8	5.3 U	5.1 U
1,2,3-Trichlorobenzene	ug/kg	4.9 UJ	5.2 UJ	5.3 U	5.1 U
1,2,4-Trichlorobenzene	ug/kg	4.9 UJ	5.2 UJ	5.3 U	5.1 U
1,1,1-Trichloroethane	ug/kg	53	860	96	230 J
1,1,2-Trichloroethane	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
Trichloroethene	ug/kg	54	1900	85	360
Trichlorofluoromethane	ug/kg	4.9 U	5.2 UJ	5.3 U	5.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11	14 J	9.5	17
Vinyl Chloride	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
m and/or p-Xylene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U
o-Xylene	ug/kg	4.9 U	5.2 U	5.3 U	5.1 U

Analysis/ Analyte	Units	37-__	38-__	39-__	40-__
1 PCBs in Solids by GC/EC					
Aroclor 1016	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1221	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1232	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1242	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1248	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1254	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1260	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1262	ug/kg	40 U	40 U	40 U	41 U
Aroclor 1268	ug/kg	40 U	40 U	40 U	41 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	57	13	91	43
Benzene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Bromochloromethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Bromodichloromethane	ug/kg	5.5 U	5.8 UJ	5.8 U	5.4 U
Bromoform	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Bromomethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
2-Butanone	ug/kg	11 U	12 U	12 U	11 U
Carbon Disulfide	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Carbon Tetrachloride	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Chlorobenzene	ug/kg	5.5 U	5.8 UJ	5.8 UJ	5.4 U
Chloroethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Chloroform	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Chloromethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Cyclohexane	ug/kg	5.5 U	5.8 UJ	5.8 U	5.4 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Dibromochloromethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,2-Dibromoethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,2-Dichlorobenzene	ug/kg	5.5 U	5.8 UJ	5.8 UJ	5.4 U
1,3-Dichlorobenzene	ug/kg	5.5 U	5.8 UJ	5.8 UJ	5.4 U
1,4-Dichlorobenzene	ug/kg	5.5 U	5.8 UJ	5.8 UJ	5.4 U
Dichlorodifluoromethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,1-Dichloroethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,2-Dichloroethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,1-Dichloroethene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
cis-1,2-Dichloroethene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
trans-1,2-Dichloroethene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,2-Dichloropropane	ug/kg	5.5 U	5.8 UJ	5.8 U	5.4 U
cis-1,3-Dichloropropene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
trans-1,3-Dichloropropene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Ethyl Benzene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
2-Hexanone	ug/kg	11 U	12 U	12 U	11 U
Isopropylbenzene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Methyl Acetate	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Methyl tert-butyl ether	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Methylcyclohexane	ug/kg	5.5 U	7.2 J	5.8 U	5.4 U

Analysis/ Analyte	Units	37-__	38-__	39-__	40-__
Methylene Chloride	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
4-Methyl-2-Pentanone	ug/kg	11 U	12 U	12 U	11 U
Styrene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,1,2,2-Tetrachloroethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Tetrachloroethene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Toluene	ug/kg	5.5 U	6.7	5.8 U	5.4 U
1,2,3-Trichlorobenzene	ug/kg	5.5 U	5.8 UJ	5.8 UJ	5.4 U
1,2,4-Trichlorobenzene	ug/kg	5.5 U	5.8 UJ	5.8 UJ	5.4 U
1,1,1-Trichloroethane	ug/kg	7.0	15	5.8 U	5.4 U
1,1,2-Trichloroethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Trichloroethene	ug/kg	5.5 U	21	5.8 U	5.4 U
Trichlorofluoromethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
1,1,2-Trichlorotrifluoroethane	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
Vinyl Chloride	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
m and/or p-Xylene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U
o-Xylene	ug/kg	5.5 U	5.8 U	5.8 U	5.4 U

Analysis/ Analyte	Units	101-__	102-FB
1 Pesticides in Water by GC/EC			
Aroclor 1016	ug/L	1.0 U	
Aroclor 1221	ug/L	1.0 U	
Aroclor 1232	ug/L	1.0 U	
Aroclor 1242	ug/L	1.0 U	
Aroclor 1248	ug/L	1.0 U	
Aroclor 1254	ug/L	1.0 U	
Aroclor 1260	ug/L	1.0 U	
1 VOCs in Water by GC/MS			
Acetone	ug/L	10 U	10 U
Benzene	ug/L	5.0 U	5.0 U
Bromochloromethane	ug/L	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U
Bromomethane	ug/L	5.0 U	5.0 U
2-Butanone	ug/L	10 U	10 U
Carbon Disulfide	ug/L	5.0 U	5.0 U
Carbon Tetrachloride	ug/L	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U
Chloroethane	ug/L	5.0 U	5.0 U
Chloroform	ug/L	5.0 U	5.0 U
Chloromethane	ug/L	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U
1,2-Dibromoethane	ug/L	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U
Dichlorodifluoromethane	ug/L	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U
Ethyl Benzene	ug/L	5.0 U	5.0 U
2-Hexanone	ug/L	10 U	10 U
Isopropylbenzene	ug/L	5.0 U	5.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	5.0 U	5.0 U
Methylcyclohexane	ug/L	5.0 U	5.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U

Analysis/ Analyte	Units	101-__	102-FB
Styrene	ug/L	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U
Toluene	ug/L	5.0 U	5.0 U
1,2,3-Trichlorobenzene	ug/L	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U
Trichloroethene	ug/L	5.0 U	5.0 U
Trichlorofluoromethane	ug/L	5.0 U	5.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	5.0 U	5.0 U
Vinyl Chloride	ug/L	5.0 U	5.0 U
m and/or p-Xylene	ug/L	5.0 U	5.0 U
o-Xylene	ug/L	5.0 U	5.0 U

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
Andrew Gieseke	Tanglefoot Lane 2021	05 (MONTH) 04 (DAY) 2021 (YEAR)	1 of 2

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	CONTAINERS: 1 L PLASTIC BOTTLE	8oz jar	(3 Vials & Tube) BOTTLE	BOTTLE	(3 VIALS EA)	SAMPLED MEDIA: WATER	SOLID	HAZ WASTE	AIR	OTHER	RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER										
8811-1		1	3				✓				MS/MSD
8811-2		1	1				✓				
8811-3		1	1				✓				
8811-4		1	1				✓				
8811-5		1	1				✓				
8811-6		1	1				✓				
8811-7		1	1				✓				
8811-8		1	1				✓				
8811-9		1	1				✓				
8811-10		1	1				✓				
8811-11		1	1				✓				
8811-12		1	1				✓				
8811-13		1	1				✓				
8811-14		1	1				✓				
8811-15		1	1				✓				
8811-16		1	1				✓				
8811-17		1	1				✓				
8811-18		1	1				✓				
8811-19		1	1				✓				
8811-20		1	1				✓				
8811-21		1	1				✓				
8811-22		1	1				✓				
8811-23		1	1				✓				
8811-24		1	1				✓				

nr 5/5/2021 =VOA set (5035kit) nr 5/5/2021

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
83 CONTAINER(S) CONSISTING OF _____ CRATE(S)	☐ COMMERCIAL CARRIER _____
4 ICE CHEST(S): OTHER _____	☑ SAMPLER CONVEYED _____ (SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

[redacted]

RECEIVED BY: NICOLE ROBLEZ Digitally signed by NICOLE ROBLEZ Date: 2021.05.05 15:31:49 -05'00'
SEALED ○ UNSEALED ◉
REASON FOR CHANGE OF CUSTODY: STC Analyses

RELINQUISHED BY (PW/SAMPLER)
SEALED ○ UNSEALED ○
RECEIVED BY
SEALED ○ UNSEALED ○
REASON FOR CHANGE OF CUSTODY

RELINQUISHED BY (PW/SAMPLER)
SEALED ○ UNSEALED ○
RECEIVED BY
SEALED ○ UNSEALED ○
REASON FOR CHANGE OF CUSTODY

RELINQUISHED BY (PW/SAMPLER)
SEALED ○ UNSEALED ○
RECEIVED BY
SEALED ○ UNSEALED ○
REASON FOR CHANGE OF CUSTODY

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
Andrew Gieseke	Tanglefoot Lane 2021	05 (MONTH) 04 (DAY) 2021 (YEAR)	2 of 2

CONTENTS OF SHIPMENT

VOA set (5035) nr5/5/2021

ASR AND SAMPLE NUMBER	1 L PLASTIC BOTTLE	8oz jar CANISTER nr	(3 Vials & Tube) BOTTLE	80oz amber BOTTLE	VOA SET (3 VIALS EA)	SAMPLED MEDIA: WATER	SOLID	HAZ WASTE	AIR	OTHER	RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER										
8811-25		1	1				✓				
8811-26		1	1				✓				
8811-27		1	1				✓				
8811-28		1	1				✓				
8811-29		1	1				✓				
8811-30		1	1				✓				
8811-31		1	3				✓				MS/MSD
8811-32		1	1				✓				
8811-33		1	1				✓				
8811-34		1	1				✓				
8811-35		1	1				✓				
8811-36		1	1				✓				
8811-37		1	1				✓				
8811-38		1	1				✓				
8811-39		1	1				✓				
8811-40		1	1				✓				
8811-101				1	1	✓					Rinsate Blank
8811-102-FB					1	✓					Trip Blank
											ASR Complete
											Coolers rec'd at the STC with temp. range
											of 0-1degC. nr5/5/2021

DESCRIPTION OF SHIPMENT

87 CONTAINER(S) CONSISTING OF _____ CRATE(S)

4 ICE CHEST(S): OTHER _____

MODE OF SHIPMENT

☐ COMMERCIAL CARRIER _____

☑ SAMPLER CONVEYED _____ (SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

(b) (4) [redacted]

SEALED ☐ UNSEALED ☉

RELINQUISHED BY (PM/SAMPLER)

SEALED ☐ UNSEALED ☐

RELINQUISHED BY (PM/SAMPLER)

SEALED ☐ UNSEALED ☐

RELINQUISHED BY (PM/SAMPLER)

SEALED ☐ UNSEALED ☐

RECEIVED BY NICOLE ROBLEZ Digitally signed by NICOLE ROBLEZ Date: 2021.05.05 15:33:44 -05'00'

SEALED ☐ UNSEALED ☉

REASON FOR CHANGE OF CUSTODY: STC Analyses

RECEIVED BY

SEALED ☐ UNSEALED ☐

REASON FOR CHANGE OF CUSTODY

RECEIVED BY

SEALED ☐ UNSEALED ☐

REASON FOR CHANGE OF CUSTODY

RECEIVED BY

SEALED ☐ UNSEALED ☐

REASON FOR CHANGE OF CUSTODY

7-EPA-9292 (REV 4/17)

APPENDIX F

DATA TABLES

TABLE 1

DPT SOIL SAMPLE SUMMARY
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

Soil Boring Number	Sample Depth (ft bgs)	EPA Sample Number	Sample Date	Sample Time	Geographic Location	
					North Latitude	West Latitude
DPT-1	4-5	8811-39	5/4/2021	13:55	41.560597	-90.47379
	9-10	8811-40		14:00		
DPT-2	3-4	8811-21		10:50	41.560592	-90.47365
	9-10	8811-22		10:55		
DPT-3	4-5	8811-19		10:30	41.560586	-90.4735
	9-10	8811-20		10:35		
DPT-4	3-5	8811-1		7:27	41.560582	-90.47335
	9-10	8811-2		7:30		
DPT-5	4-5	8811-37		13:40	41.560495	-90.47378
	9-10	8811-38		13:45		
DPT-6	4-5	8811-33		13:10	41.560468	-90.47367
	9-10	8811-34		13:15		
DPT-7	4-5	8811-17		10:15	41.560465	-90.47344
	9-10	8811-18		10:20		
DPT-8	4-5	8811-3		7:55	41.560497	-90.47329
	9-10	8811-4		8:00		
DPT-9	4-5	8811-35		13:30	41.56036	-90.47372
	9-10	8811-36		13:35		
DPT-10	4-5	8811-23		11:05	41.560379	-90.4736
	9-10	8811-24		11:10		
DPT-11	4-5	8811-15		10:00	41.560376	-90.47341
	9-10	8811-16		10:05		
DPT-12	4-5	8811-5		8:15	41.560394	-90.47326
	9-10	8811-6		8:20		
DPT-13	3-5	8811-31		12:45	41.56026	-90.47378
	9-10	8811-32		12:50		
DPT-14	4-5	8811-25		11:25	41.560254	-90.47359
	9-10	8811-26		11:30		
DPT-15	4-5	8811-13		9:35	41.560286	-90.47339
	9-10	8811-14		9:40		
DPT-16	4-5	8811-7		8:30	41.560323	-90.47325
	9-10	8811-8		8:35		
DPT-17	4-5	8811-29		12:00	41.560195	-90.47383
	9-10	8811-30		12:05		
DPT-18	4-5	8811-27		11:40	41.560191	-90.47363
	9-10	8811-28		11:45		
DPT-19	4-5	8811-11		9:15	41.560201	-90.47335
	9-10	8811-12		9:20		
DPT-20	4-5	8811-9		8:50	41.560218	-90.47321
	9-10	8811-10		8:55		

Notes:

DPT	Direct push technology
EPA	U.S. Environmental Protection Agency
ft bgs	Feet below ground surface

TABLE 2

VOC RESULTS IN SOIL
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

Soil Boring Number	Sample Depth (ft bgs)	EPA Sample ID	VOCs											
			Acetone	2-Butanone	1,1 DCE	cis-1,2 DCE	Methyl Acetate	Methylcyclohexane	PCE	Toluene	1,1,1 TCA	1,1,2 TCA	TCE	1,1,2 TCFE
			All concentrations in µg/kg											
EPA RML Residential Screening			NE	NE	NE	NE	NE	NE	2,400,000	NE	NE	110,000	94,000	NE
EPA RML Residential Screening			61,000,000	27,000,000	230,000	160,000	78,000,000	6,500,000	81,000	4,900,000	8,100,000	1,500	4,100	6,700,000
DPT-1	4'-5'	8811-39	**91**	12U	5.8U	5.8U	5.8U	5.8U	5.8U	5.8U	5.8U	5.8U	5.8U	5.8U
	9'-10'	8811-40	**43**	11U	5.4U	5.4U	5.4U	5.4U	5.4U	5.4U	5.4U	5.4U	5.4U	5.4U
DPT-2	3'-4'	8811-21	**57**	11U	5.3U	5.3U	5.3U	5.3U	5.3U	5.3U	**46**	5.3U	**52**	5.3U
	9'-10'	8811-22	**13**	11U	5.6U	5.6U	5.6U	5.6U	5.6U	5.6U	**31**	**5.6**	**57**	5.6U
DPT-3	4'-5'	8811-19	**94J**	10U	5.1U	5.1U	5.1U	5.1U	5.1U	5.1U	**22**	5.1U	**31**	5.1U
	9'-10'	8811-20	**14**	13U	6.4U	6.4U	6.4U	6.4U	6.4U	6.4U	**36**	6.4U	**82**	6.4U
DPT-4	3'-5'	8811-1	**46**	11U	5.6U	5.6U	5.6U	5.6U	5.6U	5.6U	**18**	5.6U	**27J**	5.6U
	9'-10'	8811-2	**26**	9.3U	**22**	4.7U	4.7U	4.7U	4.7U	4.7U	**92**	4.7U	**180**	**8**
DPT-5	4'-5'	8811-37	**57**	11U	5.5U	5.5U	5.5U	5.5U	5.5U	5.5U	**7**	5.5U	5.5U	5.5U
	9'-10'	8811-38	**13**	12U	5.8U	5.8U	5.8U	**7.2J**	5.8U	**6.7**	**15**	5.8U	**21**	5.8U
DPT-6	4'-5'	8811-33	**200**	**17**	4.9U	4.9U	**7.1**	4.9U	4.9U	4.9U	**53**	4.9U	**54**	**11**
	9'-10'	8811-34	**10**	10U	**33**	**19**	5.2UJ	**5.8J**	**19**	**5.8**	**860**	5.2U	**1900**	**14J**
DPT-7	4'-5'	8811-17	**140**	10U	**9.1J**	5.2U	5.2U	5.2U	**30**	5.2U	5.2U	**360**	**670**	5.2U
	9'-10'	8811-18	**24J**	12U	6.1U	**7.9**	6.1U	**11**	**16**	**7.6**	6.1U	**170**	**3400**	6.1U
DPT-8	4'-5'	8811-3	**76**	**11**	5.6U	5.6U	5.6U	5.6U	5.6U	5.6U	**30**	5.6U	**55**	5.6U
	9'-10'	8811-4	**14**	11U	**8.2**	5.5U	5.5UJ	**8.2J**	5.5U	**8.7**	5.5U	**47J**	**160**	5.5UJ
DPT-9	4'-5'	8811-35	**62**	11U	**7.6**	5.3U	5.3U	5.3U	5.3U	5.3U	**96**	5.3U	**85**	**9.5**
	9'-10'	8811-36	**26**	10U	**21**	5.1U	5.1U	5.1U	**5.7**	5.1U	**230J**	5.1U	**360**	**17**
DPT-10	4'-5'	8811-23	**57**	10U	**6.9J**	**13J**	5.1U	5.1U	**22**	5.1U	5.1U	**190**	**660**	**7.3**
	9'-10'	8811-24	**16J**	11U	**15**	**45**	5.6U	**7.2**	**39**	5.6U	5.6U	**1700**	**5000**	**15**
DPT-11	4'-5'	8811-15	**61**	9.4U	**6.4**	4.7U	4.7U	4.7U	**13**	4.7U	4.7U	**200J**	**300**	4.7U
	9'-10'	8811-16	670U	670U	330U	330U	330U	330U	330U	330U	330U	**1300**	**2900**	330U
DPT-12	4'-5'	8811-5	**99**	**12**	**5.5**	**12**	5.0U	5.0U	5.0U	5.0U	**120**	5.0U	**140**	5.0U
	9'-10'	8811-6	**15**	11U	**13**	**120**	5.3U	5.3U	5.3U	5.3U	5.3U	**380**	**590**	5.3U
DPT-13	3'-5'	8811-31	**84**	**13**	5.2U	5.2U	5.2U	5.2U	5.2U	5.2U	**64**	5.2U	**56J**	**6.7**
	9'-10'	8811-32	**27**	10U	**7.3**	5.0U	5.0U	5.0U	5.0U	5.0U	**230J**	5.0U	**400**	**13**
DPT-14	4'-5'	8811-25	**85**	**11**	**32**	**5.3**	5.0U	5.0U	**14**	5.0U	5.0U	**530**	**1300**	**16**
	9'-10'	8811-26	**21**	9.3U	**80J**	**24J**	4.6U	4.6U	**24**	4.6U	**950**	4.6U	**3100**	**19**
DPT-15	4'-5'	8811-13	**110**	**12**	**5.8**	**30**	4.6U	4.6U	4.6U	4.6U	4.6U	**290**	**870**	4.6U
	9'-10'	8811-14	**12**	9.8U	**22**	**160**	4.9U	4.9U	**5.1**	4.9U	4.9U	**680**	**1400**	**6.4**
DPT-16	4'-5'	8811-7	**53**	11U	5.3U	**12**	5.3U	5.3U	5.3U	5.3U	5.3U	**170**	**190J**	5.3U
	9'-10'	8811-8	**20**	12U	5.9U	**49**	5.9U	5.9U	5.9U	5.9U	**160**	5.9U	**230J**	5.9U
DPT-17	4'-5'	8811-29	**110**	10U	5.1U	5.1U	5.1U	5.1U	5.1U	5.1U	**7.8**	5.1U	**6.4**	5.1U
	9'-10'	8811-30	**21**	9.7U	4.8U	4.8U	4.8U	4.8U	4.8U	4.8U	**13**	4.8U	**17**	4.8U
DPT-18	4'-5'	8811-27	**31**	11U	5.4U	5.4U	5.4U	5.4U	5.4U	5.4U	**20**	5.4U	**11**	**9.1**
	9'-10'	8811-28	**45**	9.8U	4.9U	4.9U	4.9U	4.9U	4.9U	4.9U	**79**	4.9U	**57**	**9**
DPT-19	4'-5'	8811-11	**19**	10U	5.0U	**30**	5.0U	5.0U	5.0U	5.0U	5.0U	**160**	**390**	5.0U
	9'-10'	8811-12	9.7U	9.7U	4.9U	**39**	4.9U	4.9U	4.9U	4.9U	4.9U	**86**	**160**	4.9U
DPT-20	4'-5'	8811-9	**14**	10U	5.1U	**24**	5.1U	5.1U	5.1U	5.1U	5.1U	**110**	**140**	5.1U
	9'-10'	8811-10	**13**	13U	6.3U	**14**	6.3U	6.3U	6.3U	6.3U	6.3U	**40**	**66**	6.3U

Notes:

Bolded value exceeds laboratory detection limit.
Shaded valued exceeds EPA Region 7 Screening Level.

bgs	Below ground surface
C	Carcinogenic
DCE	Dichloroethene
DPT	Direct-push technology
EPA	U.S. Environmental Protection Agency
ft	Feet
ID	Identification
J	Estimated concentration that is less than the method reporting limit but greater than the method detection limit
µg/kg	Micrograms per kilogram
N	Noncarcinogenic
NE	Not established
PCE	Tetrachloroethene
RML	Removal Management Level
TCA	Trichloroethane
TCE	Trichloroethene
TCFE	Trichlorotrifluoroethane
U	Analyte not detected at concentration at or above reporting limit
VOC	Volatile organic compound

TABLE 3

PCB RESULTS IN SOIL
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

Soil Boring Number	Sample Depth (ft bgs)	EPA Sample ID	PCBs								
			Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
			All concentrations in µg/kg								
EPA RML Residential Screening			**660,000**	**20,000**	**17,000**	**23,000**	**23,000**	**24,000**	**24,000**	**NE**	**NE**
EPA RML Residential Screening			**4,100**	**NE**	**NE**	**NE**	**NE**	**1,200**	**NE**	**NE**	**NE**
DPT-1	4'-5'	8811-39	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-40	41U	41U	41U	41U	41U	41U	41U	41U	41U
DPT-2	3'-4'	8811-21	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-22	39U	39U	39U	39U	39U	39U	39U	39U	39U
DPT-3	4'-5'	8811-19	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-20	39U	39U	39U	39U	39U	39U	39U	39U	39U
DPT-4	3'-5'	8811-1	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-2	41U	41U	41U	41U	41U	41U	41U	41U	41U
DPT-5	4'-5'	8811-37	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-38	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-6	4'-5'	8811-33	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-34	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-7	4'-5'	8811-17	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-18	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-8	4'-5'	8811-3	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-4	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-9	4'-5'	8811-35	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-36	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-10	4'-5'	8811-23	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-24	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-11	4'-5'	8811-15	39U	39U	39U	39U	39U	39U	39U	39U	39U
	9'-10'	8811-16	39U	39U	39U	39U	39U	39U	**120**	39U	39U
DPT-12	4'-5'	8811-5	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-6	39U	39U	39U	39U	39U	39U	39U	39U	39U
DPT-13	3'-5'	8811-31	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-32	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-14	4'-5'	8811-25	41U	41U	41U	41U	41U	41U	41U	41U	41U
	9'-10'	8811-26	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-15	4'-5'	8811-13	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-14	40U	40U	40U	40U	40U	40U	40U	40U	40U
DPT-16	4'-5'	8811-7	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-8	37U	37U	37U	37U	37U	37U	37U	37U	37U
DPT-17	4'-5'	8811-29	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-30	37U	37U	37U	37U	37U	37U	37U	37U	37U
DPT-18	4'-5'	8811-27	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-28	38U	38U	38U	38U	38U	38U	38U	38U	38U
DPT-19	4'-5'	8811-11	40U	40U	40U	40U	40U	40U	40U	40U	40U
	9'-10'	8811-12	37U	37U	37U	37U	37U	37U	37U	37U	37U
DPT-20	4'-5'	8811-9	39U	39U	39U	39U	39U	39U	39U	39U	39U
	9'-10'	8811-10	37U	37U	37U	37U	37U	37U	37U	37U	37U

Notes:

Bolded value exceeds laboratory detection limit.

bgs	Below ground surface
C	Carcinogenic
ft	Feet
ID	Identification
µg/kg	Micrograms per kilogram
N	Noncarcinogenic
NE	Not established
PCB	Polychlorinated biphenyl
RML	Removal Management Level
U	Analyte not detected at concentration at or above reporting limit